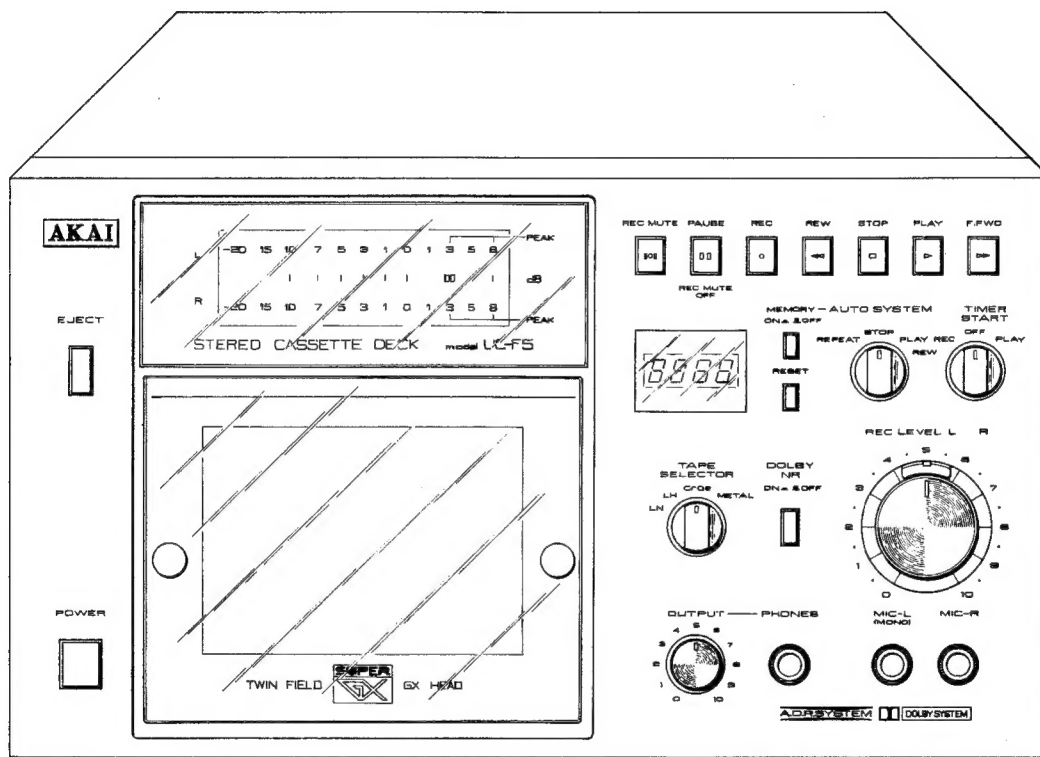


AKAI SERVICE MANUAL

UC-F5



STEREO CASSETTE DECK

MODEL **UC-F5**

SECTION 1

SERVICE MANUAL

TABLE OF CONTENTS

| | | |
|-------|---|----|
| I. | TECHNICAL DATA | 4 |
| II. | DISMANTLING OF UNIT | 5 |
| III. | CONTROLS | 7 |
| IV. | PRINCIPAL PARTS LOCATION | 8 |
| V. | VOLTAGE AND CYCLE CONVERSION | 9 |
| | 1. VOLTAGE CONVERSION | 9 |
| | 2. CYCLE CONVERSION | 9 |
| VI. | CIRCUIT OPERATING PRINCIPLES | 10 |
| | 1. SYSTEM CONTROL OPERATION | 10 |
| | 2. DIGITAL COUNTER CIRCUITRY OPERATION | 19 |
| VII. | MECHANISM ADJUSTMENT | 22 |
| | 1. PLAY PLUNGER INSTALLATION POSITION ADJUSTMENT | 22 |
| | 2. PAUSE PLUNGER INSTALLATION POSITION ADJUSTMENT | 22 |
| | 3. REC SAFETY SWITCH INSTALLATION POSITION ADJUSTMENT | 22 |
| | 4. TAPE SPEED ADJUSTMENT | 22 |
| | 5. BRAKE PLUNGER INSTALLATION POSITION ADJUSTMENT | 23 |
| | 6. FLYWHEEL LOOSE PLAY ADJUSTMENT | 23 |
| | 7. PINCH ROLLER PRESSURE MEASUREMENT | 24 |
| | 8. WINDING TORQUE MEASUREMENT IN EACH MODE | 24 |
| | 9. ADJUSTMENT OF DIGITAL COUNTER'S SENSITIVITY | 25 |
| VIII. | HEAD ADJUSTMENT | 26 |
| | 1. TAPE GUIDE HEIGHT ADJUSTMENT | 26 |
| | 2. REC/PB HEAD PROJECTION ADJUSTMENT | 26 |
| | 3. RECORDING/PLAYBACK HEAD HEIGHT ADJUSTMENT | 27 |
| | 4. RECORDING/PLAYBACK HEAD AZIMUTH ALIGNMENT ADJUSTMENT | 27 |
| IX. | AMPLIFIER ADJUSTMENT | 28 |
| X. | DC RESISTANCE OF VARIOUS COILS | 31 |
| XI. | CLASSIFICATION OF VARIOUS P.C BOARDS | 32 |
| | 1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS | 32 |
| | 2. COMPOSITION OF VARIOUS P.C BOARDS | 33 |

For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. TECHNICAL DATA

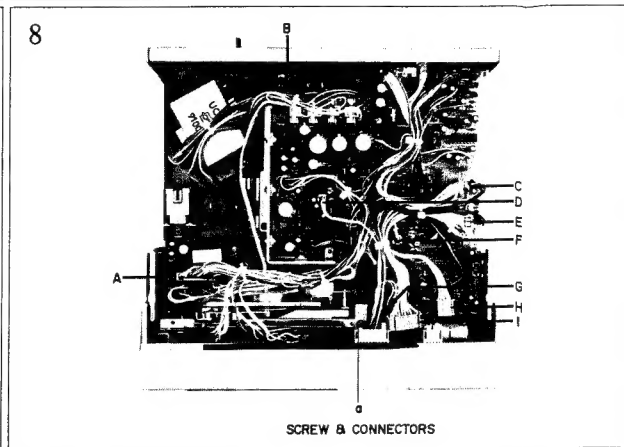
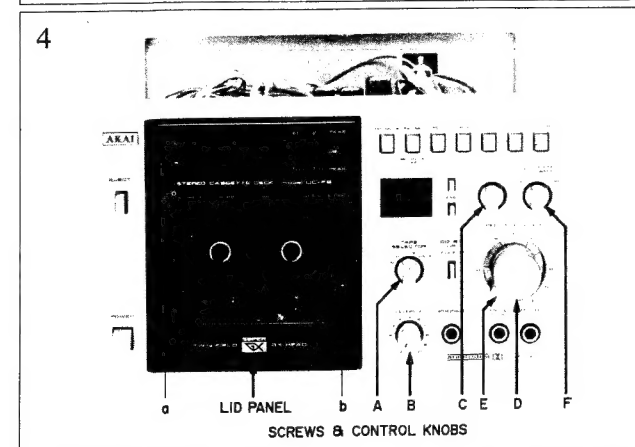
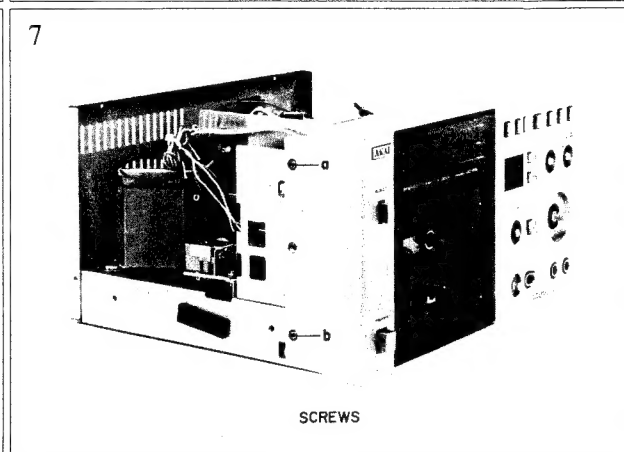
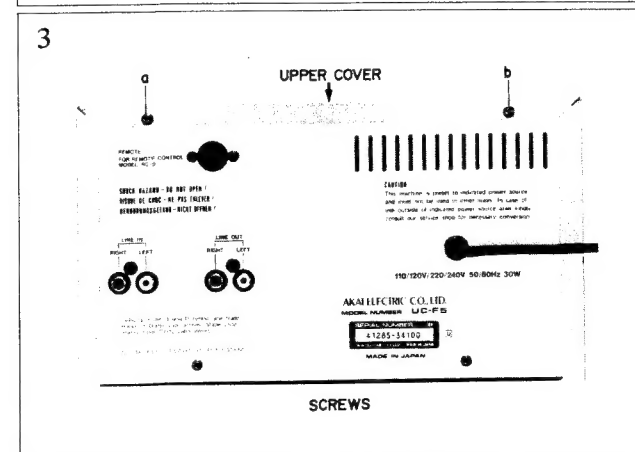
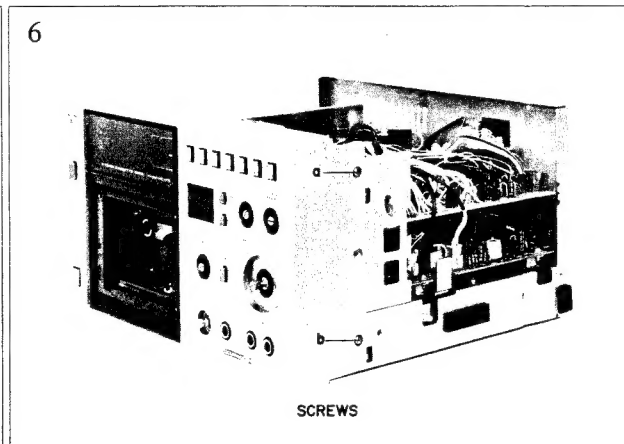
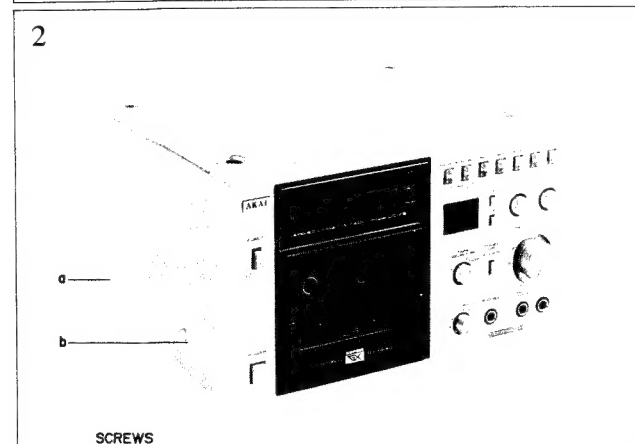
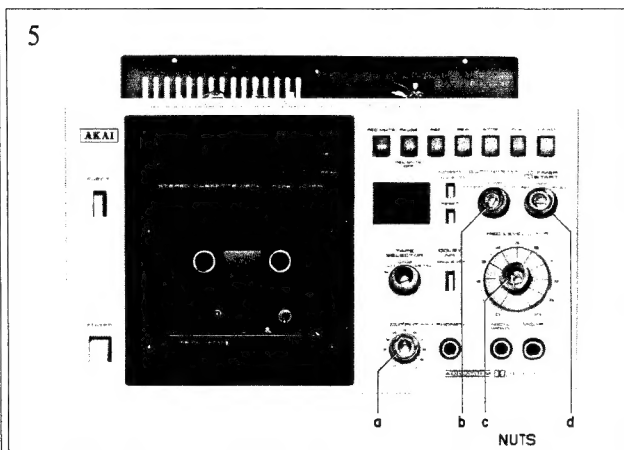
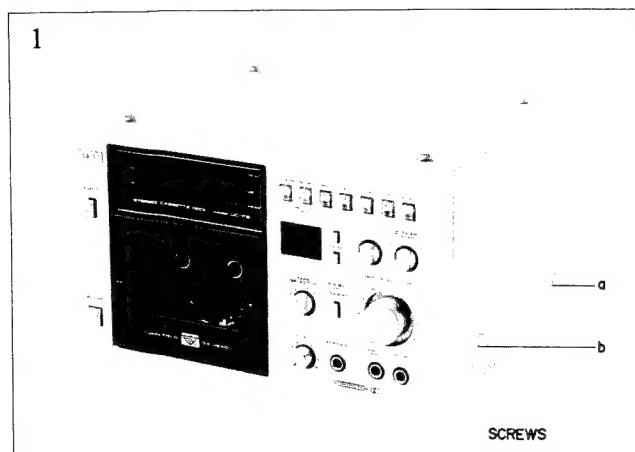
| | |
|-----------------------|---|
| TRACK SYSTEM | 4 track 2 channel stereo system |
| TAPE | Philips type cassette |
| TAPE SPEED | 4.76 cm/s $\pm 1.5\%$ (1-7/8 ips. $\pm 1.5\%$) |
| HEADS | Erase head x1 Twin field super GX recording/playback head x1 |
| MOTORS | Electronically speed controlled DC motor for capstan drive x1 DC motor for reel drive x1 |
| WOW & FLUTTER | Less than 0.035% WRMS, 0.10% (DIN 45500) |
| TAPE WINDING TIME | 60 sec. using a C-60 cassette tape |
| FREQUENCY RESPONSE | LN: 30 to 15,000 Hz ± 3 dB (-20 VU) LH: 30 to 16,000 Hz ± 3 dB (-20 VU) CrO ₂ : 30 to 16,500 Hz ± 3 dB (-20 VU) 30 to 9,000 Hz ± 3 dB (0 VU) Metal: 30 to 19,000 Hz ± 3 dB (-20 VU) 30 to 13,000 Hz ± 3 dB (0 VU) |
| SIGNAL TO NOISE RATIO | LN: Better than 58 dB LH: Better than 59 dB CrO ₂ : Better than 60 dB Metal: Better than 61 dB (measured via tape with peak recording level) Dolby NR switch ON: Improves up to 10 dB above 5 kHz |
| HARMONIC DISTORTION | LN: Less than 0.8% LH: Less than 0.8% CrO ₂ : Less than 0.7% Metal: Less than 0.6% |
| INPUT | MIC 0.25 mV (input impedance 5.0 kohms) Required microphone impedance: 600 ohms LINE: 70 mV (input impedance 47 kohms) |
| OUTPUT | LINE: 410 mV at 0 VU Required load impedance: more than 100 kohms PHONE: 100 mV/8 ohms at 0 VU |
| DIMENSIONS | 280 (W) x 161 (H) x 277 (D) mm (11.0 x 6.3 x 10.9") |
| WEIGHT | 7.6 kg (16.7 lbs) |
| POWER REQUIREMENTS | 100 V, 50/60 Hz for Japan Model 120 V, 60 Hz for U.S.A. and Canada 220/240 V, switchable 50 Hz for European countries and Australia 110/120/220/240 V, 50/60 Hz switchable for other countries |
| POWER CONSUMPTION | 28 W for JPN Model 30 W for the other Models |

* For improvement purposes, specifications and design are subject to change without notice.

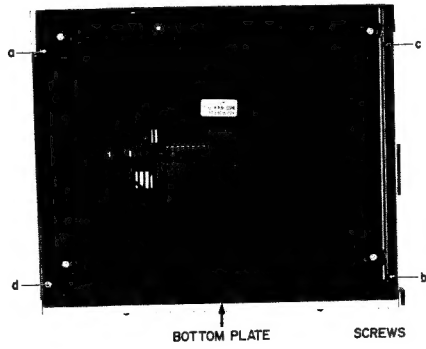
* "Dolby" and the Double D symbol are trademarks of Dolby Laboratories. (Manufactured under license from Dolby Laboratories).

II. DISMANTLING OF UNIT

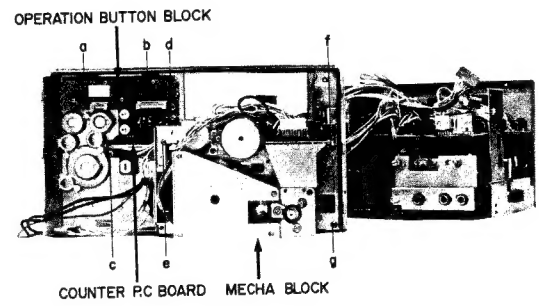
In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.



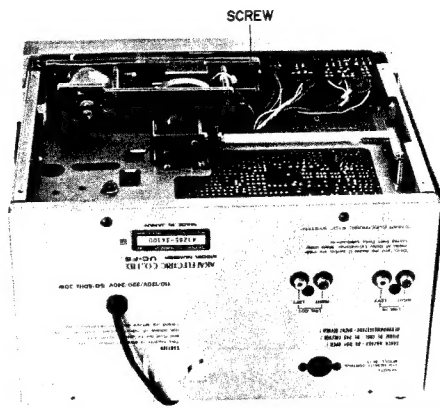
9



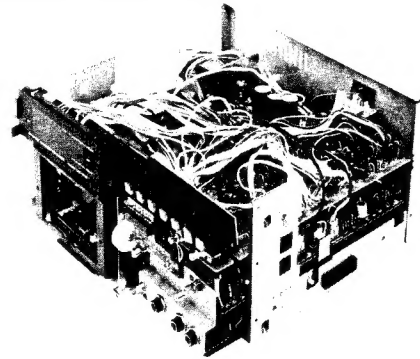
12



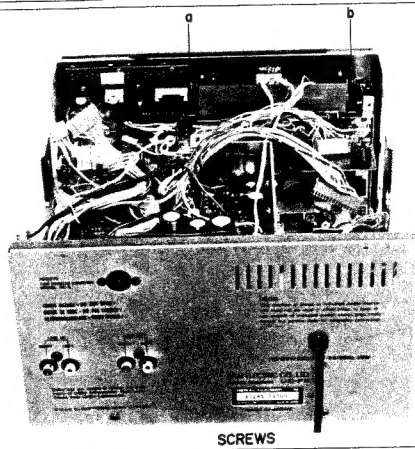
10



13 Connect each connector.



11



III. CONTROLS

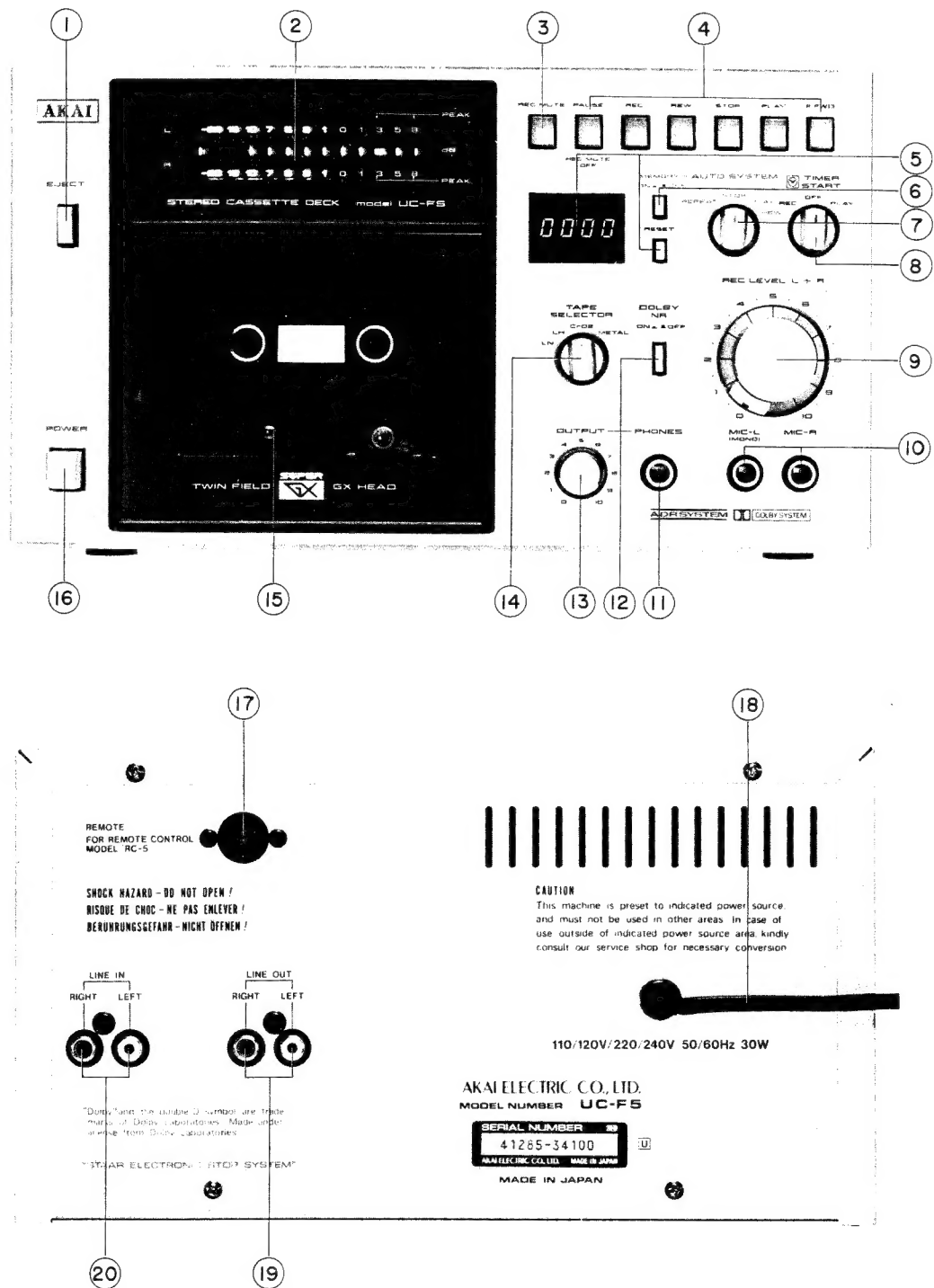


Fig. 1 Controls

- | | |
|--|-------------------------------|
| 1. EJECT BUTTON | 12. DOLBY NR BUTTON |
| 2. FL DISPLAY BAR METERS | 13. OUTPUT LEVEL CONTROL |
| 3. REC MUTE | 14. TAPE SELECTOR |
| 4. MODE BUTTONS | 15. CASSETTE RECEPTACLE |
| 5. INDEX COUNTER and RESET BUTTON | 16. POWER SWITCH |
| 6. MEMORY BUTTON | 17. REMOTE CONTROL JACK |
| 7. AUTO SYSTEM | 18. POWER CORD |
| 8. TIMER START SWITCH | (Some units have an AC inlet) |
| 9. REC LEVEL CONTROLS (Left and Right) | 19. LINE OUT JACKS |
| 10. MICROPHONE JACKS (Left and Right) | 20. LINE IN JACKS |
| 11. HEADPHONE JACK | |

IV. PRINCIPAL PARTS LOCATION

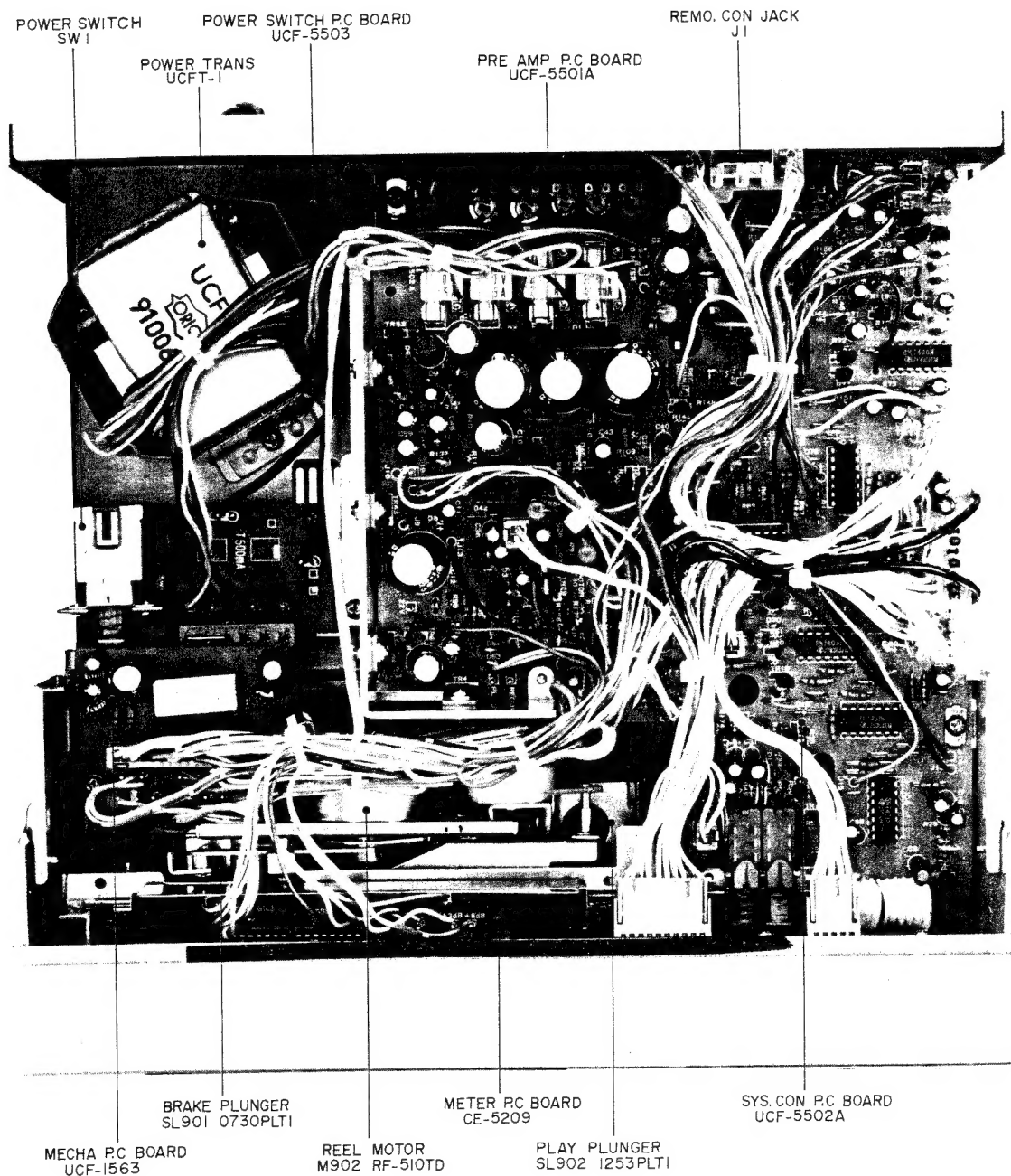


Fig. 2 Top View

V. VOLTAGE AND CYCLE CONVERSION

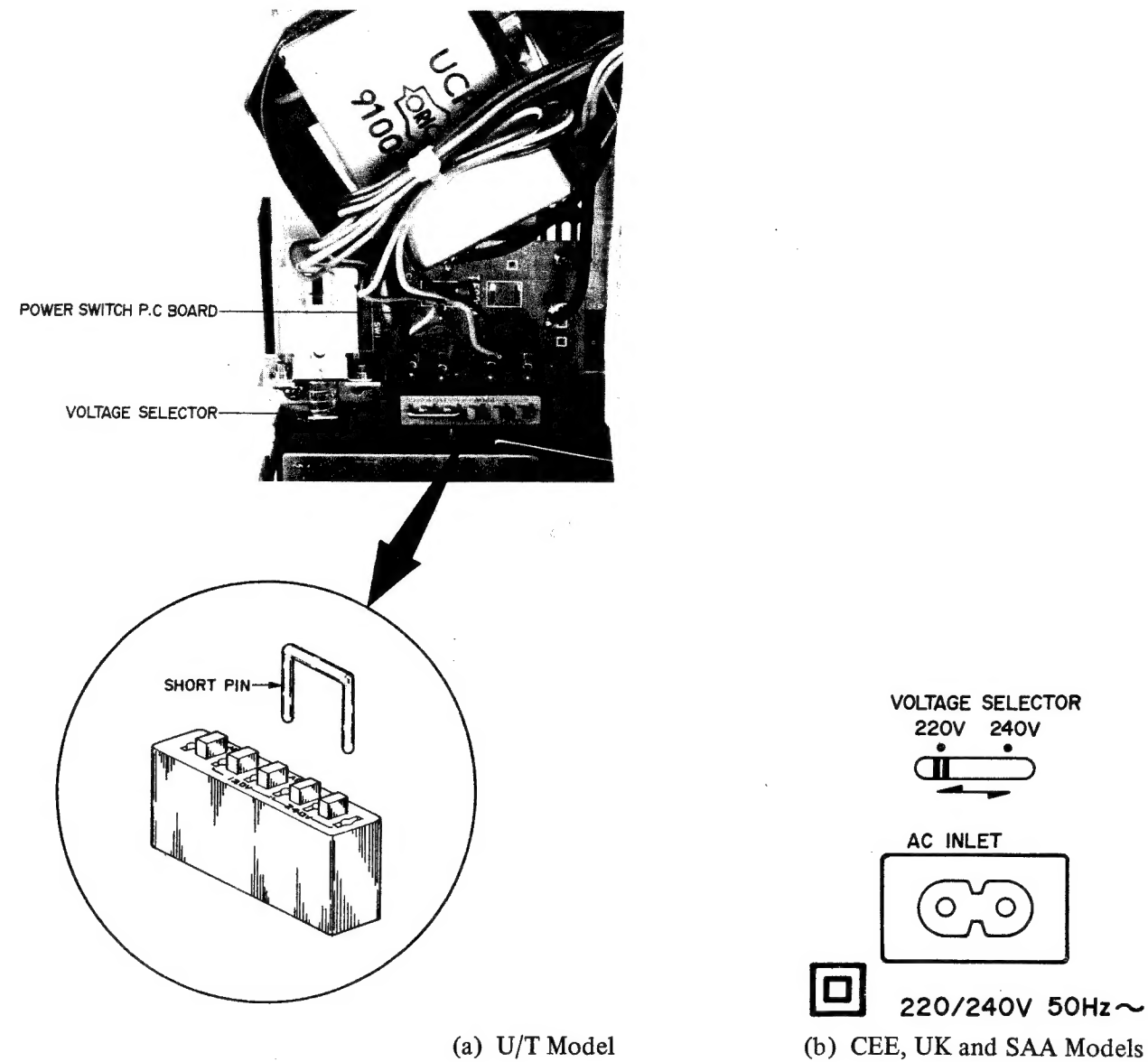


Fig. 3 Voltage Conversion

1. VOLTAGE CONVERSION

1-1. JPN, CSA and AAL Models

No, voltage conversion.

1-2. U/T Model (Refer to Fig. 3(a))

- 1) Disconnect power cord.
- 2) Loosen holding screws and remove upper cover.
- 3) Remove short pin plug from present holes and replace in correct holes. Follow the markings explicitly.

1-3. CEE, UK and SAA Models (Refer to Fig. 3(b))

A voltage selector switch is provided above the AC inlet on the back side of machine. Select the proper voltage by this switch according to the voltage to be used. Move the switch to the left side for 220V and to the right side for 240V.

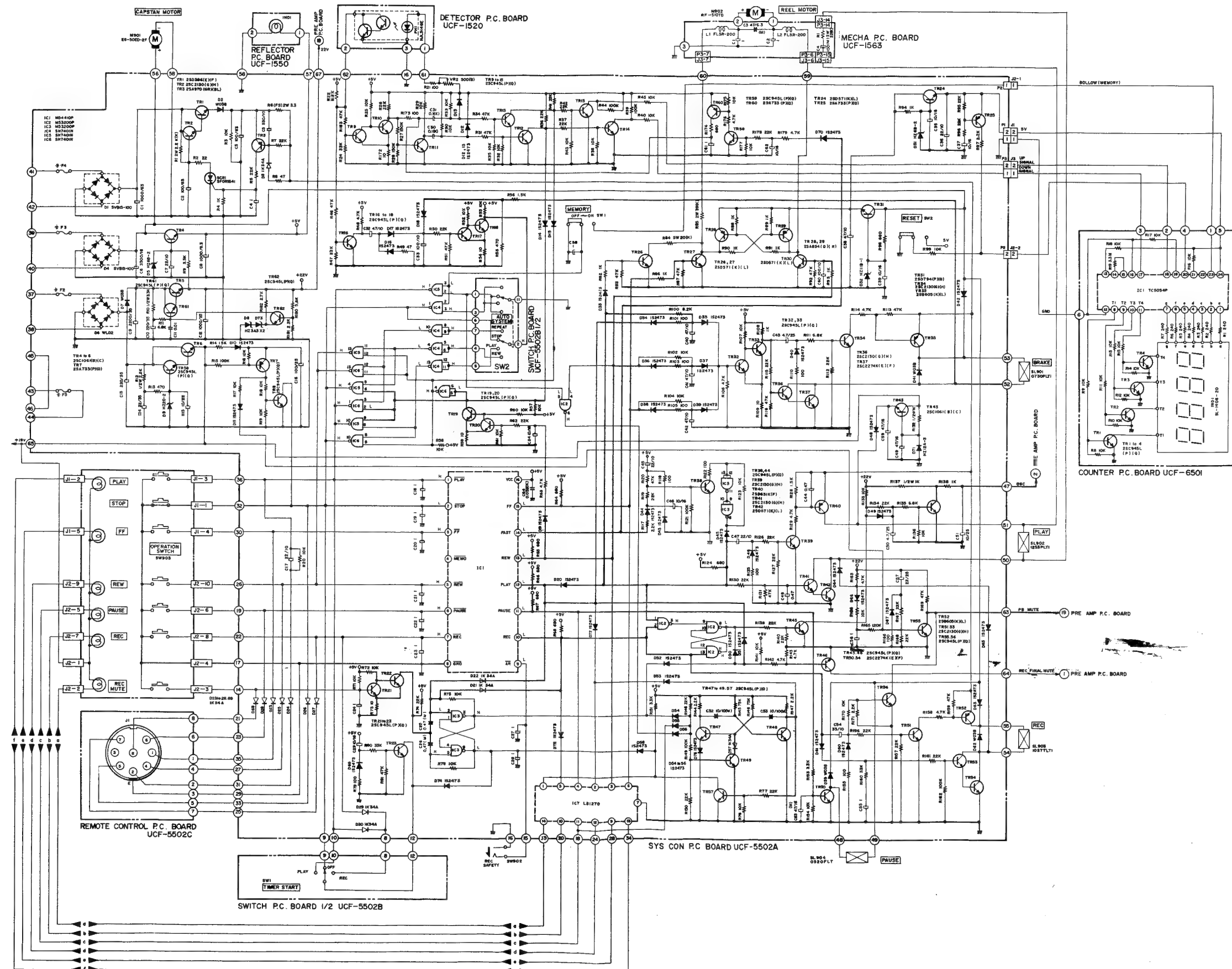
2. CYCLE CONVERSION

With DC motor, cycle conversion is not necessary.

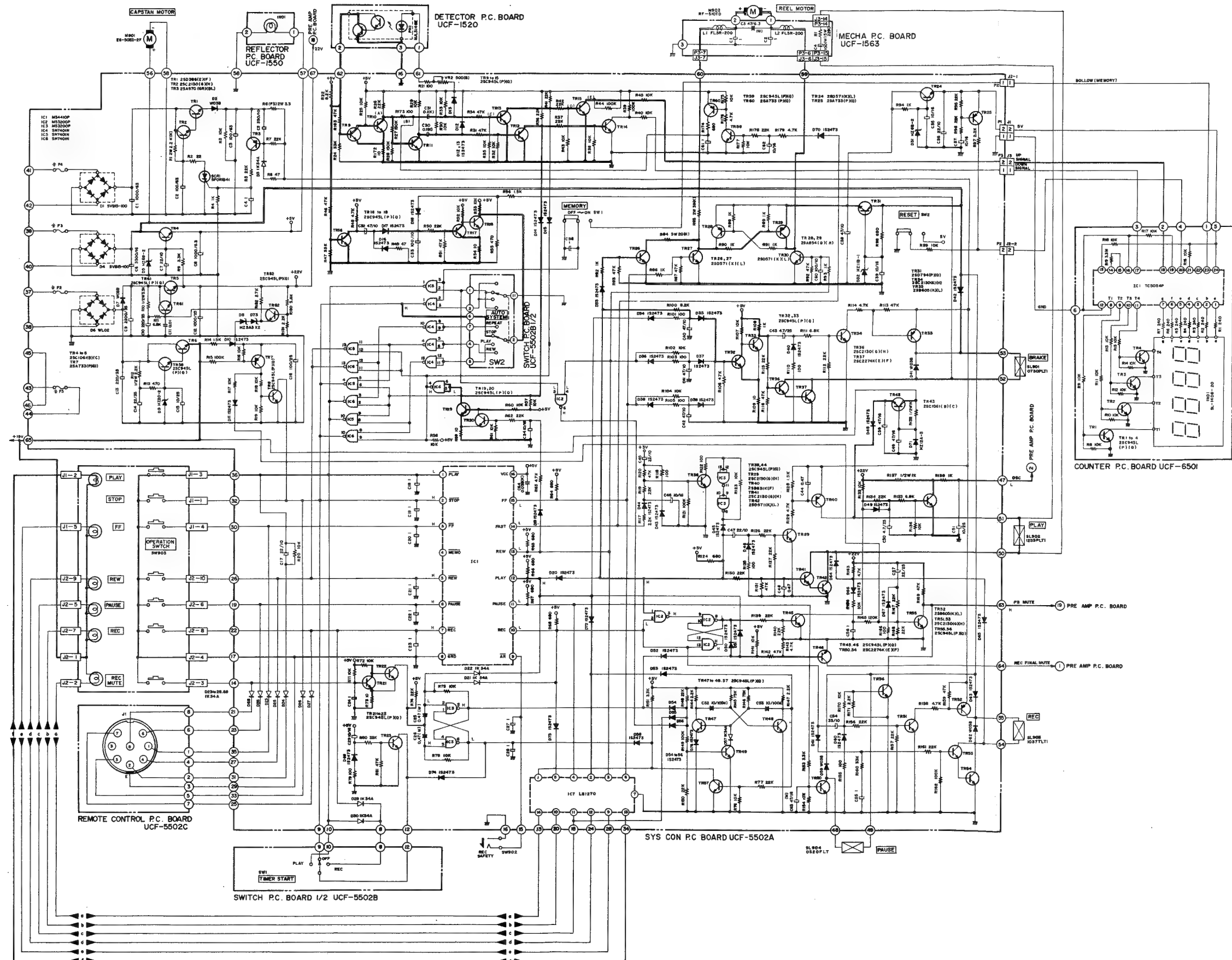
VI. CIRCUIT OPERATING PRINCIPLES

1. SYSTEM CONTROL OPERATION

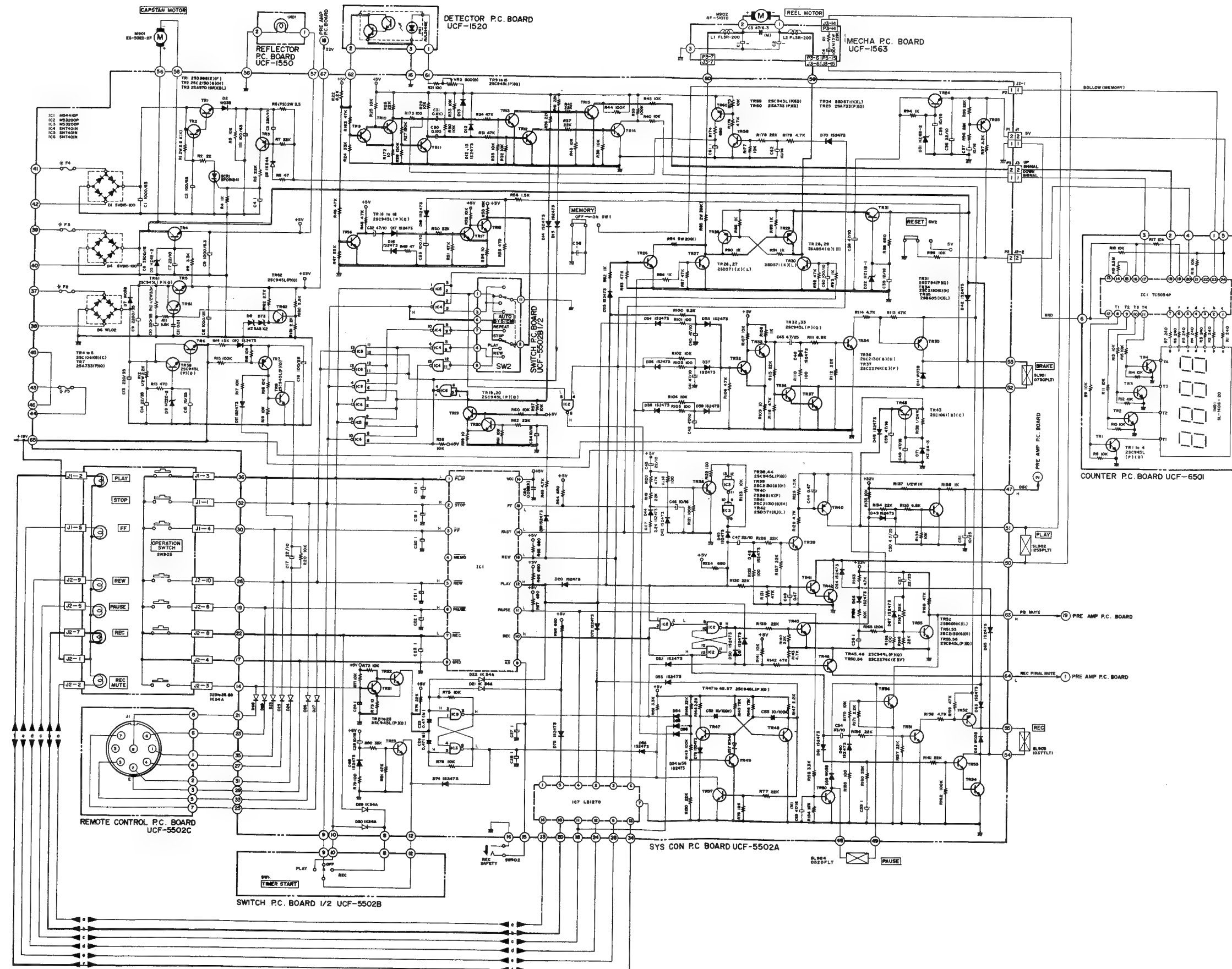
Schematic - 1 STOP MODE



Schematic - 2 PLAY MODE



Schematic - 3 REC/PLAY MODE



[illegible]

1-1. CIRCUIT CONSTRUCTION OF IC1 M54410P

This logic IC has been developed for an operation key that will maintain a HIGH output level by even a momentary low level in the desired input terminal.

1) Block Diagram

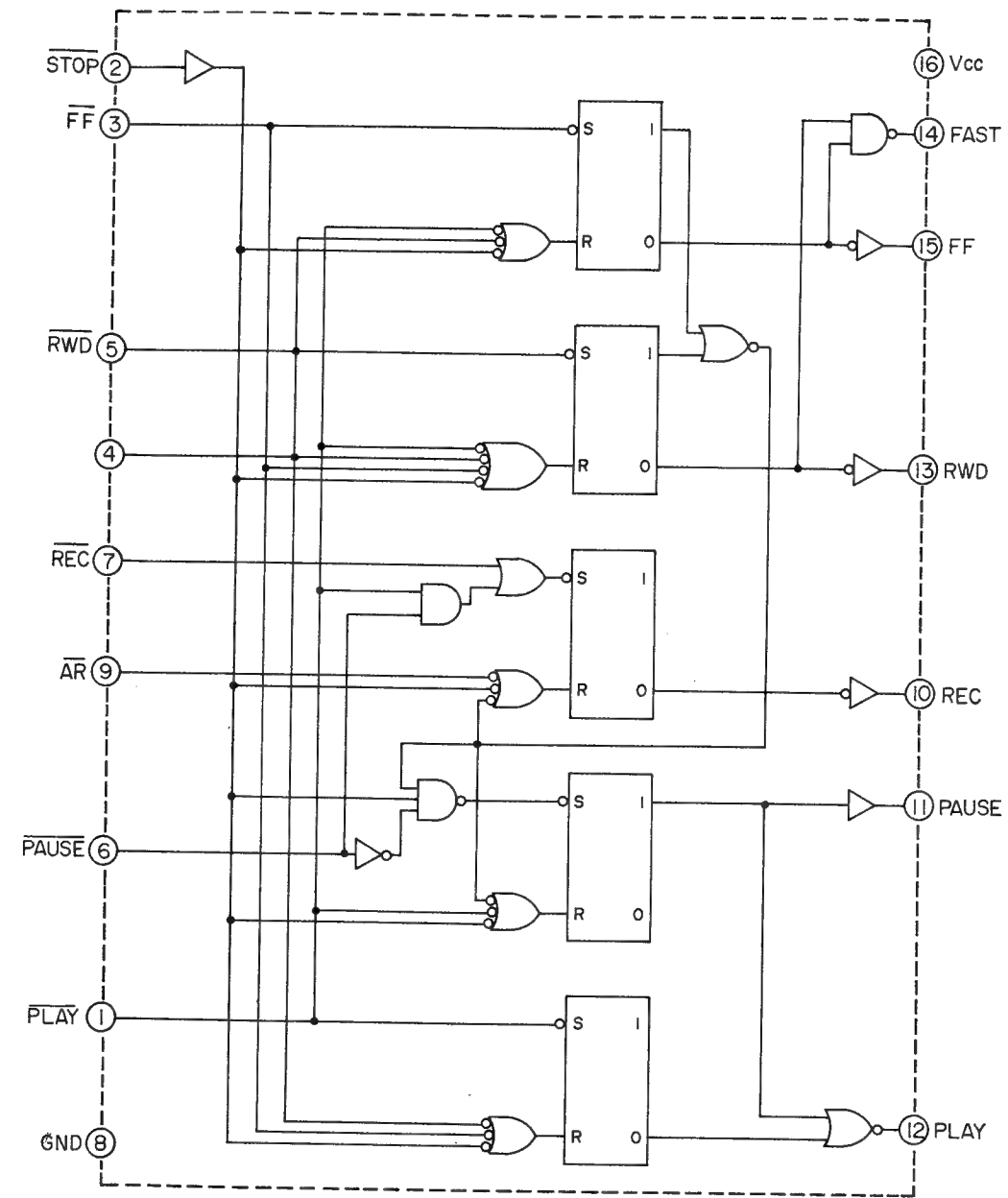


Fig. 4 M54410P

2) Terminals and their functions

| | Terminal Name | Terminal Function |
|---|---------------------------|--|
| Operation input terminals | $\overline{\text{STOP}}$ | Input terminal for stopping operation |
| | $\overline{\text{FF}}$ | Input terminal for fast forward |
| | $\overline{\text{REW}}$ | Input terminal for rewind |
| | $\overline{\text{REC}}$ | Input terminal for recording |
| | $\overline{\text{PAUSE}}$ | Input terminal for pause |
| | $\overline{\text{PLAY}}$ | Input terminal for playback |
| Control input terminal $\overline{\text{AR}}$ | | Input terminal for preventing recording |
| Output terminals | FAST | Terminal with "H" signal output during fast forward or rewind mode |
| | FF | Terminal with "H" signal output during fast forward mode |
| | REW | Terminal with "H" signal output during rewind mode |
| | REC | Terminal with "H" signal output during REC/PLAY or REC/PAUSE mode |
| | PAUSE | Terminal with "H" signal output during pause mode |
| | PLAY | Terminal with "H" signal output during playback mode |

Chart-1

3) Operation activated by each input

| Input Signal | Output | | | | | | Output Mode |
|-------------------------------|--------|----|-----|-----|-------|------|----------------|
| | FAST | FF | REW | REC | PAUSE | PLAY | |
| $\overline{\text{STOP}}$ | L | L | L | L | L | L | STOP Mode |
| $\overline{\text{FF}}$ | H | H | L | L | L | L | FF Mode |
| $\overline{\text{REW}}$ | H | L | H | L | L | L | REW Mode |
| $\overline{\text{PLAY}}$ | L | L | L | L | L | H | PLAY Mode |
| $\overline{\text{PAUSE}}$ | L | L | L | L | H | L | PAUSE Mode |
| $\overline{\text{REC/PLAY}}$ | L | L | L | H | L | H | REC/PLAY Mode |
| $\overline{\text{REC/PAUSE}}$ | L | L | L | H | H | L | REC/PAUSE Mode |

Chart-2

- NOTES:
1. The input signal is activated by the fall of $\overline{\text{L}}$.
 2. The output is maintained until the next input signal.
 3. $\overline{\text{AR}}$ is a control input terminal and the REC output is not "H" when $\overline{\text{AR}} = \text{"L"}$.
 4. When $\overline{\text{AR}} = \text{"L"}$, signal is supplied during the REC output is "H", REC output becomes "L".
 5. At the moment the power is on, all output will be "L" and the Stop mode will be effected.

1-2. Transistor and Plunger Activated for Each Operation (Refer to Sys. Con Schematic Diagram)

| | TR40 | TR42 | PLAY PLUNGER | TR35 | TR37 | BRAKE PLUNGER | TR52 | TR54 | REC PLUNGER | TR50 | PAUSE PLUNGER |
|------------|------|------|-----------------|------|------|------------------|------|------|----------------|------|------------------|
| PLAY | Δ | ○ | ○ | Δ | ○ | ○ | | | | | |
| PLAY/PAUSE | | | | | | | | | | ○ | ○ |
| REC/PLAY | Δ | ○ | ○ | Δ | ○ | ○ | Δ | ○ | ○ | | |
| REC/PAUSE | | | | | | | Δ | ○ | ○ | ○ | ○ |
| FF | | | | Δ | ○ | ○ | | | | | |
| REW | | | | Δ | ○ | ○ | | | | | |

○: Operating

Δ: Momentary Operation

Chart-3

2. DIGITAL COUNTER CIRCUITRY OPERATION

2-1. Circuit Structure of IC1 TC5054P

TC5054P is an IC for a 4 digit, decade up/down counter with a built-in 7 segment driver/decoder. On the inside, with the counter as base it is constructed of a 4 digit latch, multiplexer, scanning

oscillation circuit and a driver/decoder driving the LEDs directly. The clock input is separate for down and up clocks and each input has a schmitt trigger for shaping the waveform.

1) Block Diagram

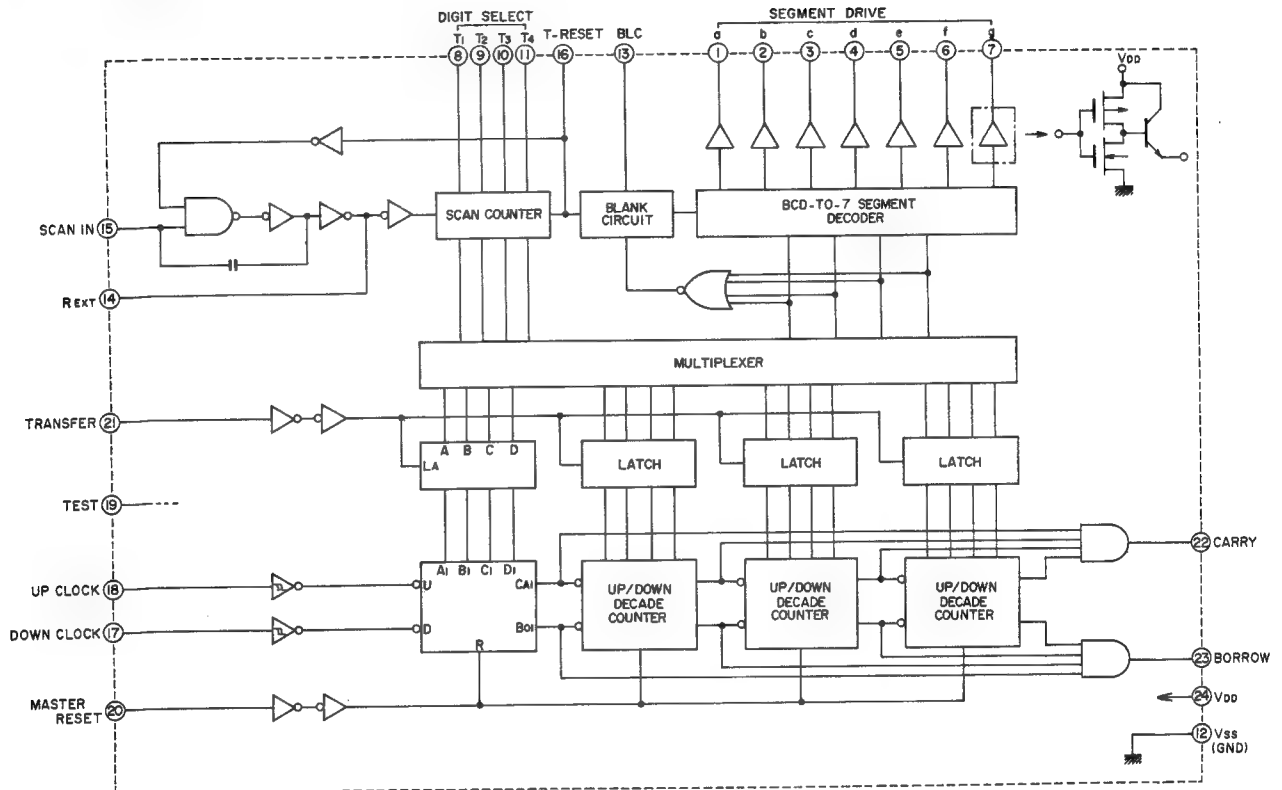


Fig. 5 TC5054P

2) Description of Pin Function

| PIN NO. | SYMBOL | NAME | FUNCTION | | |
|---------|-----------------|-------------------|---|---------------------------------------|--|
| 1 | a | SEGMENT a | a-g are outputs which change the decade up/down counter BCD output in 7 segment display element drive code. These segment signals are output dynamically from the highest digit at the same time as SCAN input. Generous calculation of the IOH input enables the direct cathode common type LEDs to be driven. | | |
| 2 | b | SEGMENT b | | | |
| 3 | c | SEGMENT c | | | |
| 4 | d | SEGMENT d | | | |
| 5 | e | SEGMENT e | | | |
| 6 | f | SEGMENT f | | | |
| 7 | g | SEGMENT g | | | |
| 8 | T ₁ | DIGIT SELECT 1 | Outputs for displaying the number of digits of a-g outputs and correspond in order to the highest digit from T ₁ . By applying the clock to the SCAN input changes T ₁ → T ₂ → T ₃ → T ₄ → T ₁ automatically. | | |
| 9 | T ₂ | DIGIT SELECT 2 | | | |
| 10 | T ₃ | DIGIT SELECT 3 | | | |
| 11 | T ₄ | DIGIT SELECT 4 | | | |
| 12 | V _{SS} | V _{SS} | (GND) | | |
| 13 | BLC | BLANKING CONTROL | “H” | Not zero suppressed | Digits higher than the position (n-1) can have the leading zero suppressed by connecting with T _n . |
| | | | “L” | All digits Leading zero suppressed | |
| 14 | REXT | REGISTER EXTERNAL | Scan clock generated if a resistor is connected in between it and S _{IN} . Open when S _{IN} is applied from outside. | | |
| 15 | S _{IN} | SCAN IN | Is the clock input for the digit selection counter and if a resistor is connected between it and REXT., can oscillate itself. (Equally a pulse may be added from outside.) | | |
| 16 | TR | T-COUNTER RESET | The input of “H” level can stop the SCAN counter. When TR is raised, the SCAN counter will always open scanning from T ₁ . | | |
| 17 | DOWN | DOWN COUNT | With the UP input at “H” level by applying a pulse, the internal counter counts down at the raised part of the pulse. | | |
| 18 | UP | UP COUNT | With the DOWN input at “H”, by applying a pulse, the internal counter can count up at the raised parts of the pulse. | | |
| 19 | TEST | TEST | Conducted at “L” level. (If at “H” level the count will change at the raised and lowered of the pulse.) | | |
| 20 | MR | MASTER RESET | During count can be cleared to “0000” by inputting “H” level. | | |
| 21 | TRF | TRANSFER | With a “H” level input, the counter’s contents are usually passed through the multiplexor and then output. With “L” level input, the counter’s contents are held in the LATCH circuit until it changes to “L” and even if the counter’s contents change it does not change. | | |
| 22 | CARRY | CARRY | During UP COUNT, when the counter registers “999”, “H” level is output only while the UP CLOCK is “L” level. | | |
| 23 | BORROW | BORROW | During DOWN COUNT, when the counter registers “0000”, “H” level will be output only while the DOWN CLOCK input is at “L”. | | |
| 24 | V _{DD} | V _{DD} | (V _{DD}) | | |

Chart-4

2-2. Count Operation

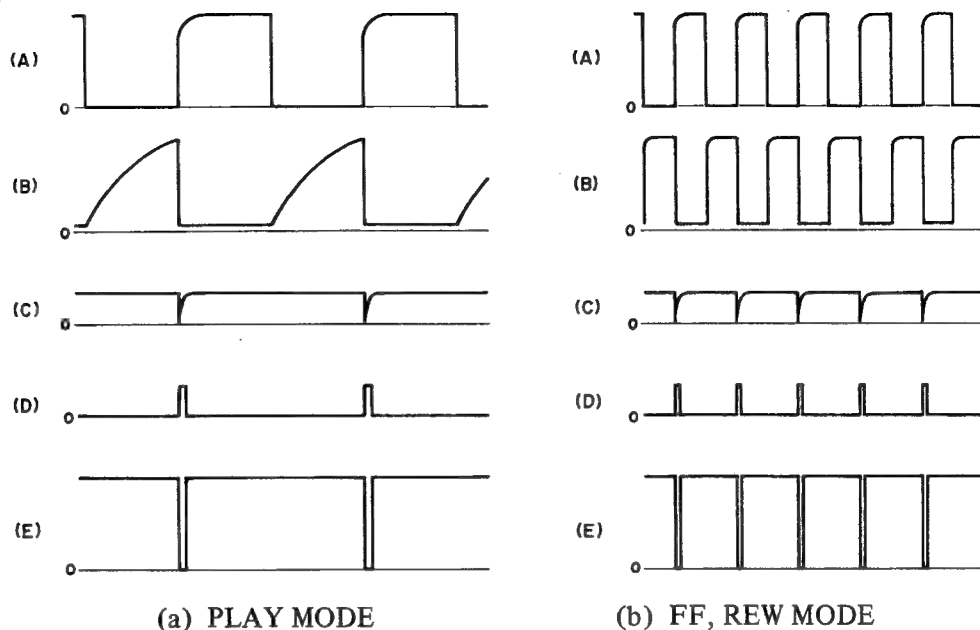


Fig. 6

The count pulse is generated by PH 1 together with the reel revolution. This pulse is amplified by TR9 and TR10, its waveform shaped by TR13 and TR15 during FF and PLAY and then it is input into TC5054P as up clock. During REW, its waveform is shaped by TR11, TR12 and TR14 and input as down clock. TR19 and TR20 switch between up clock and down clock.

1) UP Count Operation in FF or PLAY Modes

(Refer to Schematic 2, 5 and Fig. 6)

In FF or PLAY modes, as TR20 is OFF, base bias is added to TR19 through R60 turning TR19 ON. As a result, TR12's collector becomes earth potential and the count pulse is not added to TR14. In this way, the count pulse amplified by TR9 and TR10 passes through TR13 and TR15 and is input into the up count of TC5054P as up count pulse. At this point the pulse widths are different in FF and PLAY modes so TR60 is turned ON (FF mode) and OFF (PLAY mode), C61's charging curve is changed and the count operation secured. In the FF mode, as TR59 and TR60 are ON, the charging time for C61 is decided by R174-C61 and is short if compared with PLAY. In the PLAY mode, as TR54 and TR60 are OFF, the charging time for C61 is decided by $(R26 + R173)$ - C61 and is longer than FF. In the PLAY mode, a noise pulse may be generated by light but this is eliminated by C61 by making the time longer and miscounting is prevented. Fig. 6 is the waveform of points A to E drawn in the Schematics 2, 5.

2) Down Count Operation During REW (Refer

to Schematic 6 and Fig. 6).

In the REW mode, base bias is added to TR20 and TR20 is turned ON. Next, as TR19 is OFF, "H" level is input into IC6 ⑤, ⑥ through R57 and "L" level is output to IC6 ④. As a result, TR13's collector becomes earth potential and the up count pulse is not added to the base of TR15. In this way, the count pulse amplified by TR9, TR10 passes through TR11, TR12 and TR14 and is input into the down count input of TC5054P as down count pulse.

3) Memory Stop Operation (Refer to Schematic 6)

"H" level appears in TC5054P's BORROW terminal ②③ when the counter has become "0000" at down count. When the counter reaches "0000" when set at memory stop, "H" level appears from the BORROW terminal so passing through SW1 then IC4 ② becomes "H" level.

IC4 ③ is open and "H" level because the Auto System switch is at STOP. As a result, IC41 changes to "L" level and M54410P's stop input terminal is made "L" level. In this way, it changes to STOP mode from REW when the counter reaches "0000".

4) "0000" Indication Operation When the Power is Connected.

When the power supply is connected, TR25 turns ON only while C37 is being charged and through R97 "H" level is added to TR5054P's reset terminal. The counter display shows "0000".

In this way, then the power is supplied, "H" level is added to the reset terminal so that the counter will begin from "0000".

VII. MECHANISM ADJUSTMENT

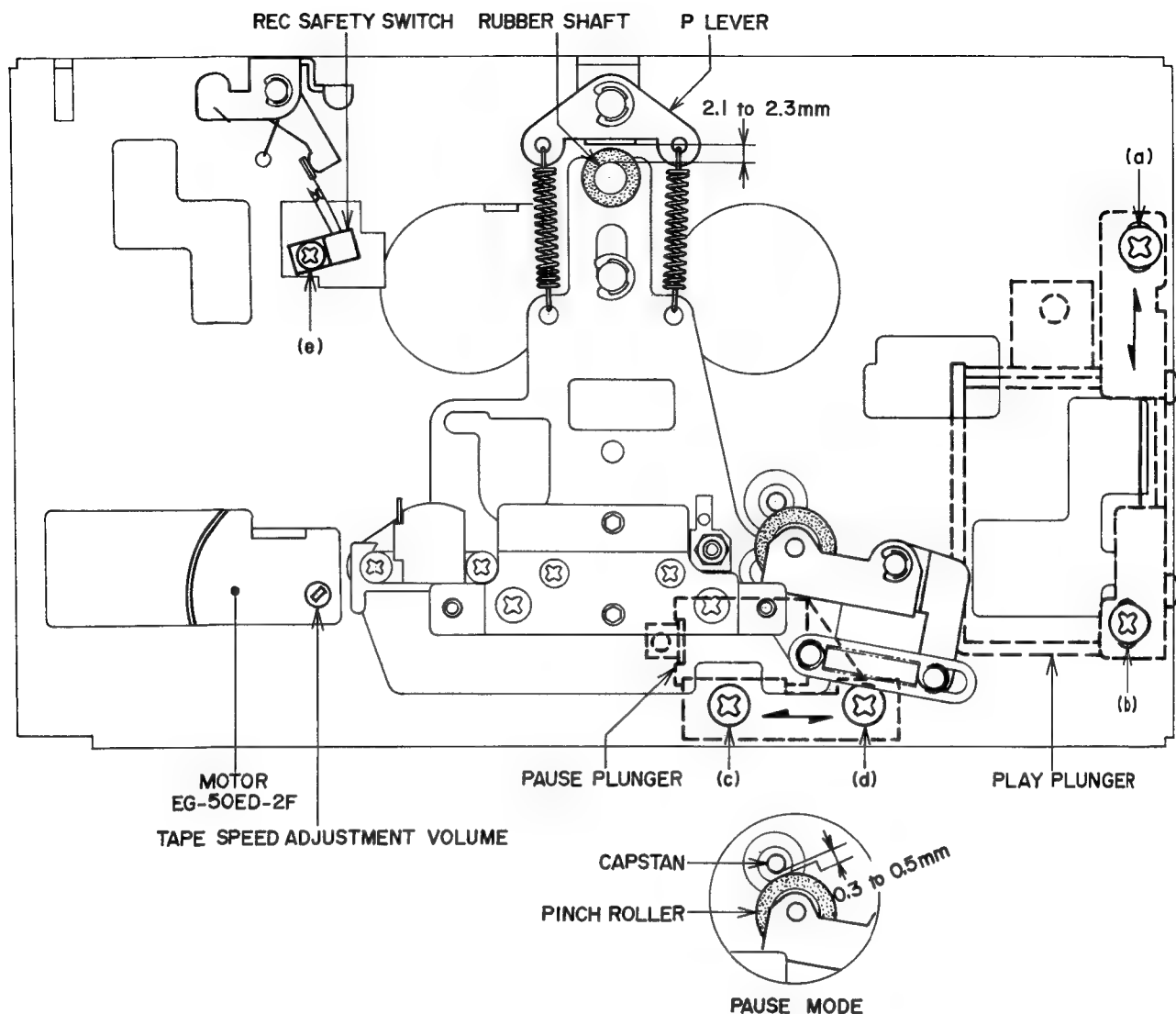


Fig. 7 Mecha Frame Block

1. PLAY PLUNGER INSTALLATION

POSITION ADJUSTMENT (Refer to Fig. 7)

Put in PLAY mode to activate the PLAY plunger. Adjust the position of the play plunger with the installation screws (a), (b) so that the distance between the top edge of the rubber shaft and the P lever is 2.1 to 2.3 mm. After adjustment coat the installation screws with screw lock.

2. PAUSE PLUNGER INSTALLATION

POSITION ADJUSTMENT (Refer to Fig. 7)

Adjust the position of the pause plunger with the installation screws (c), (d) so that the gap between the capstan and the pinch roller is 0.3 – 0.5 mm when changing from PLAY mode to PAUSE mode. After adjustment, paint lock the screws.

3. REC SAFETY SWITCH INSTALLATION

POSITION ADJUSTMENT (Refer to Fig. 7)

Using a cassette pack with the break-out tabs broken and a cassette pack with the break-out tabs unbroken, adjust the Rec Safety installation position until the conditions below are satisfied:

- a) does not enter into REC mode (switch point ON) when a cassette pack with the break-out tabs broken is inserted.
- b) does enter into REC mode (switch point OFF) when a cassette pack with the break-out tabs unbroken is inserted.

after adjustment, paint lock the screws.

4. TAPE SPEED ADJUSTMENT

(Refer to Fig. 7)

Connect the frequency counter to the line output terminals. Playback a 1,000 Hz prerecorded test tape and adjust tape speed adjustment volume to obtain a tape speed of 1,000 Hz \pm 1.5%.

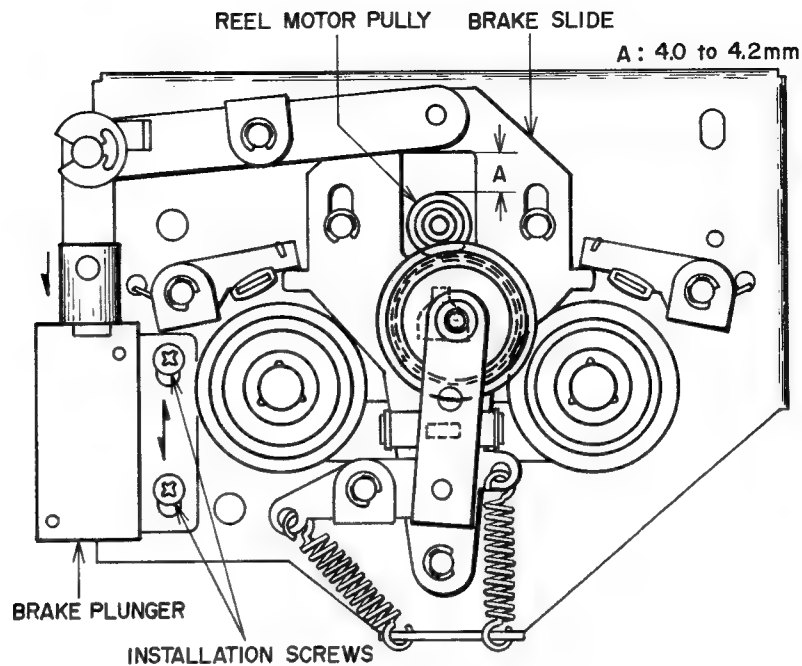


Fig. 8 Sub Frame Block

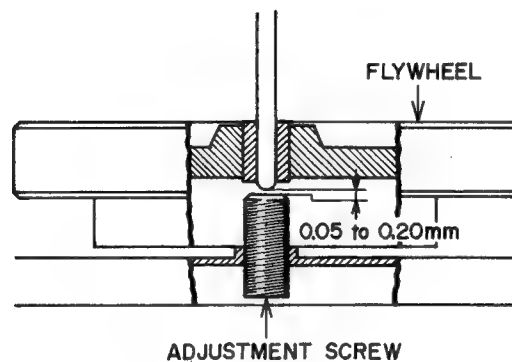


Fig. 9 Flywheel Adjustment

5. BRAKE PLUNGER INSTALLATION

POSITION ADJUSTMENT (Refer to Fig. 8)

Once the core of the brake plunger has been pushed in the direction of the arrows, (the brake plunger is in operation) loosen the two installation screws and alter their position until gap A is 4.0 to 4.2 mm.

After adjustment, paint lock the screws.

6. FLYWHEEL LOOSE PLAY ADJUSTMENT

(Refer to Fig. 9)

Adjustment by turning flywheel loose play adjustment screw to obtain a 0.05 to 0.20 mm of loose play when the flywheel is moved as indicated by the arrow mark. After adjustment, paint lock the screws.

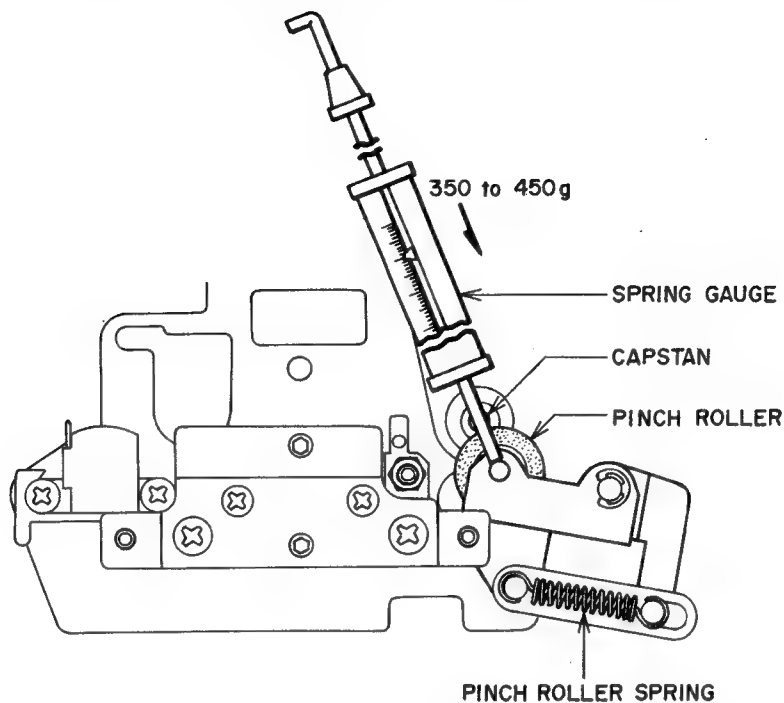


Fig. 10

7. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 10)

At playback mode, push the pinch roller with a spring gauge until the pinch roller separates from the capstan by about 1 mm to 2 mm and then gently return. Take a reading of the spring gauge indication at the moment the pinch roller touches the capstan and begins to rotate.

Specified Pinch Roller Pressure: 350 to 450 gm
In case specified pressure cannot be attained, replace the pinch roller spring.

8. WINDING TORQUE MEASUREMENT IN EACH MODE

Insert cassette torque meter and measure in each mode. For fast forward and rewind measure at the end of the tape when the tape has stopped running. The specified torque is:

Play: 35 to 55 g-cm.

Fast Forward, Rewind: 70 to 120 g-cm.

When both the standard torque values are extremely small, check to see if there is any oil on the idler, reel table and motor pulley.

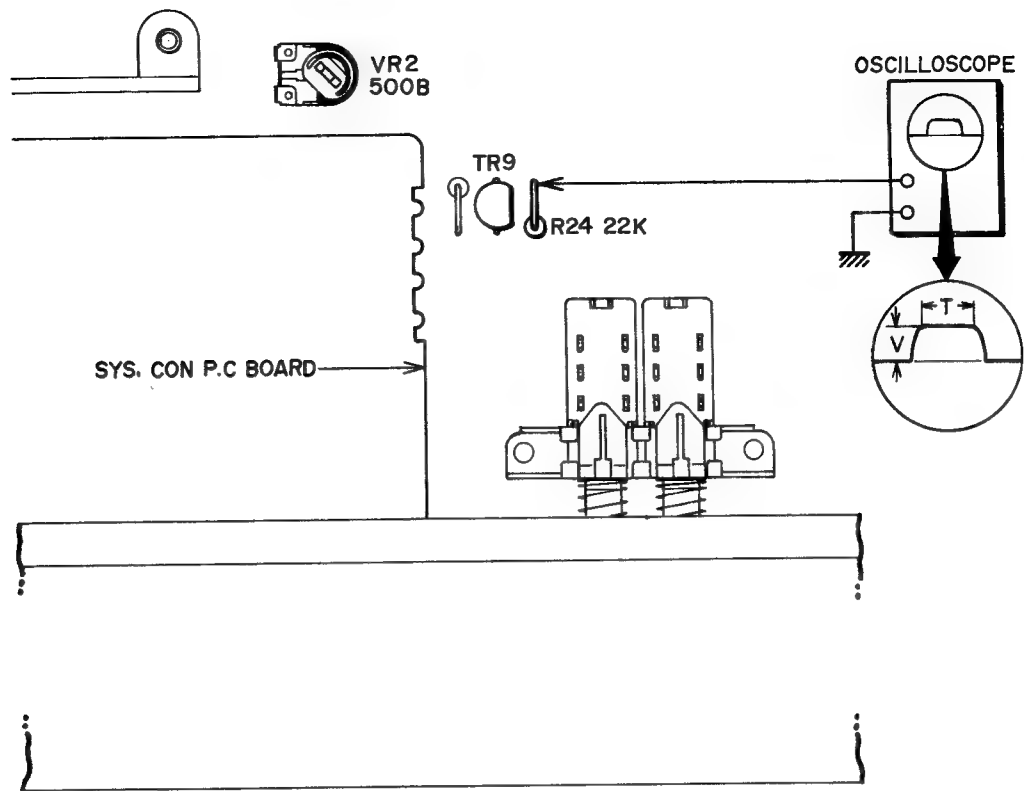


Fig. 11

9. ADJUSTMENT OF DIGITAL COUNTER'S SENSITIVITY (Refer to Fig. 11)

Make an empty pack, without the tape by removing only the tape from a TDK Low Noise Pack. Insert this cassette pack and put to PLAY mode. Connect a oscilloscope between the T.P. (R24's TR9 base side) and earth. Adjust with VR2 500B until the oscilloscope's waveform is $V > 0.2V$, $T > 7 \text{ msec}$.

VIII. HEAD ADJUSTMENT

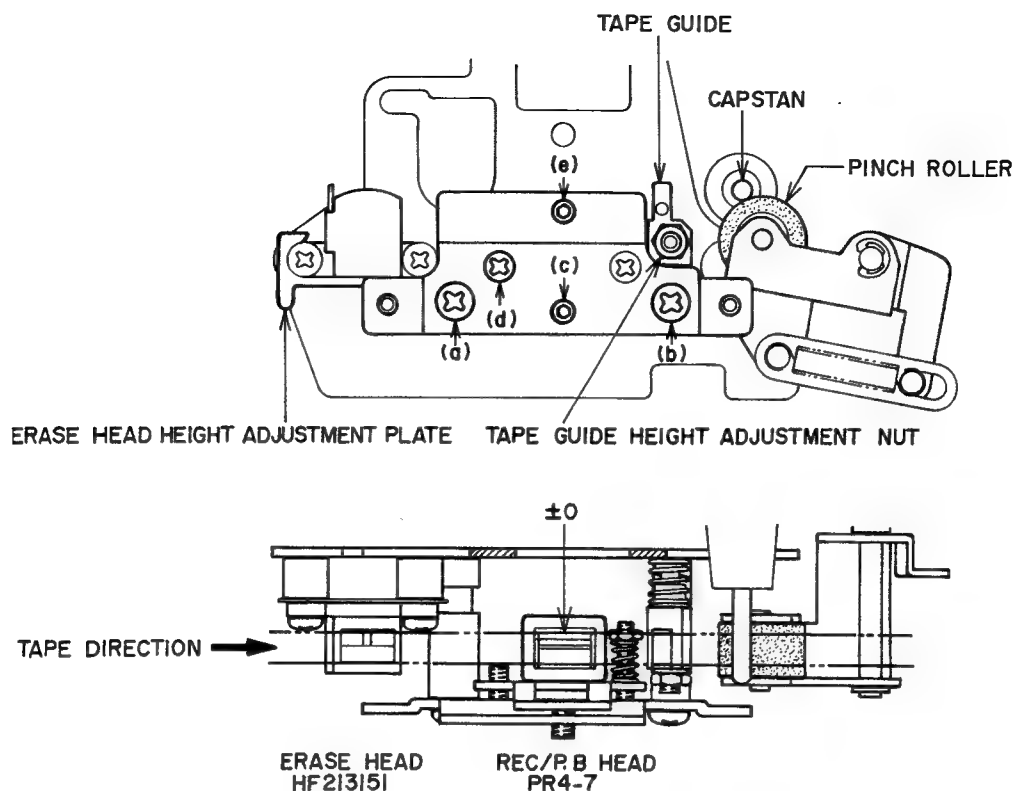


Fig. 12 Head Adjustment

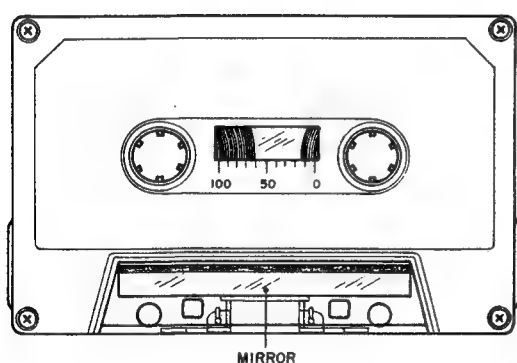


Fig. 13 Mirror Cassette

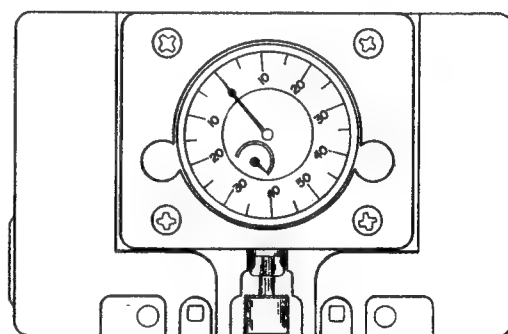


Fig. 14 AKAI Head Projection Gauge

1. TAPE GUIDE HEIGHT ADJUSTMENT

(Refer to Figs. 12, 13)

- 1) When using an ordinary cassette, the tape guides and heads, etc. are not visible. As shown in Fig. 13 use a cassette tape from which part of the cassette case has been cut out and a mirror installed for easy visibility of the head area when making tape guide height adjustment.
- 2) To adjust the height of Tape Guide (A), take the height of the Tape Guide (B) as the standard height. Normally do not adjust the height of the combined erase head and Tape Guide (B). Adjust the height of the Tape Guide (A) in the PLAY mode so that the tape runs smoothly without getting caught in a tape guide.
- 3) When changing the erase head, adjust the height of the Tape Guide (A) completely before changing

the erase head. Change the erase head. This time, taking the height of the Tape Guide (A) as the standard height, change the Erase Head height. Adjust the height of the Tape Guide (A) in the PLAY mode so that the tape runs smoothly without getting caught in a tape guide.

2. REC/PB HEAD PROJECTION

ADJUSTMENT (Refer to Figs. 12, 14)

Insert the AKAI Head Projection Gauge (Fig. 14) and adjust screws (a) and (b) so that it reads 3.4 to 3.65 mm in the Playback Mode.

3. RECORDING/PLAYBACK HEAD HEIGHT ADJUSTMENT (Refer to Figs. 12, 13)

- 1) Utilize the cassette tape used in Tape Guide Height Adjustment above, and playback the leader tape part of cassette tape.
- 2) As shown in Fig. 12, adjust head height with screws (c), (d) and (e) until the upper edge of the tape is the same height as the upper edge of the left channel REC/PB head core.
- 3) After completing adjustment step 2), playback the Head Height adjustment tape (4 track, 1,000 Hz) and adjust Head Height adjustment screws (c), (d), (e) to put the output power from both channels to maximum.

4. RECORDING/PLAYBACK HEAD AZIMUTH ALIGNMENT ADJUSTMENT (Refer to Fig. 12)

- 1) Playback a 10 kHz pre-recorded cassette azimuth alignment test tape and adjust screw (d) shown in Fig. 12 to obtain maximum output on both channels.
- 2) Invert cassette and confirm that the output level does not change from that obtained in Item 4-1) above. If the output level differs, adjust in the same way as in Item 4-1) above until both sides of the test tape display equal output.
- 3) After adjustment, check head height and azimuth alignment again.

- NOTES:
1. Be sure to clean the heads prior to head adjustment.
 2. Be careful not to use a magnetized driver or other magnetized tools in the vicinity of the heads.
 3. Be sure to demagnetize the heads with a Head Demagnetizer before and after head adjustment.
 4. When a mirror installed cassette test tape as shown in Fig. 13 is required, it can be ordered from AKAI Electric Co.

IX. AMPLIFIER ADJUSTMENT

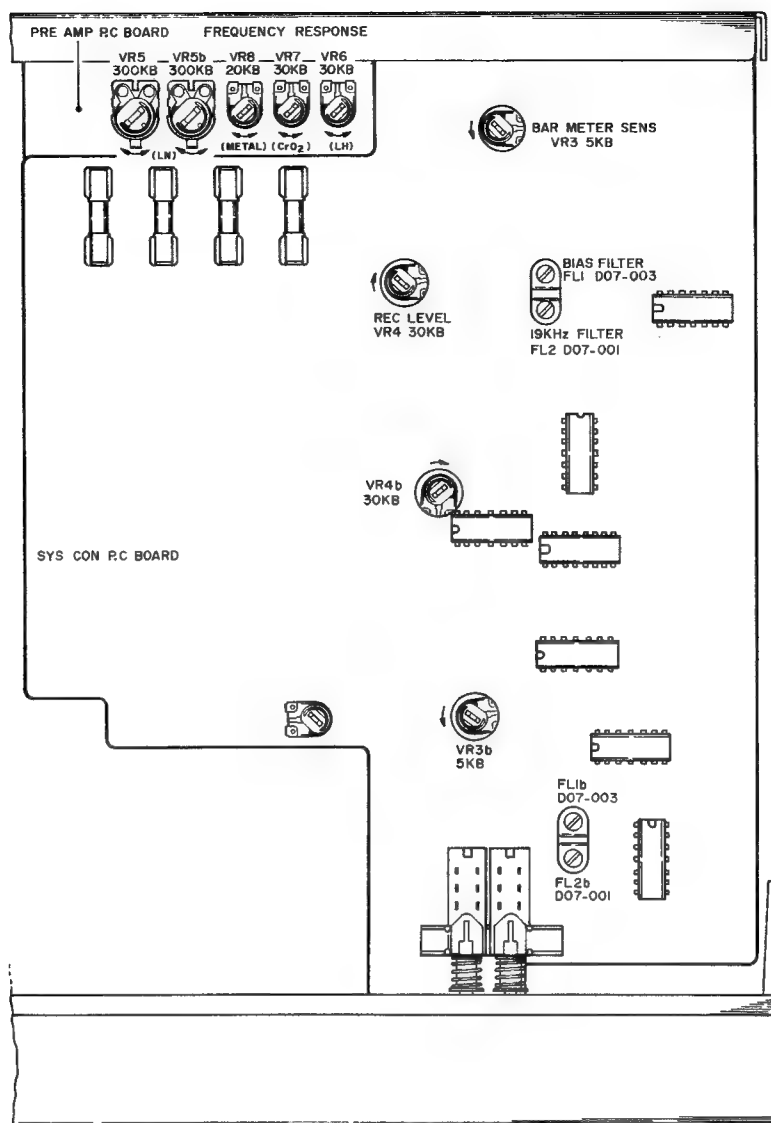


Fig. 15 Amplifier Adjustment Points (Top View)

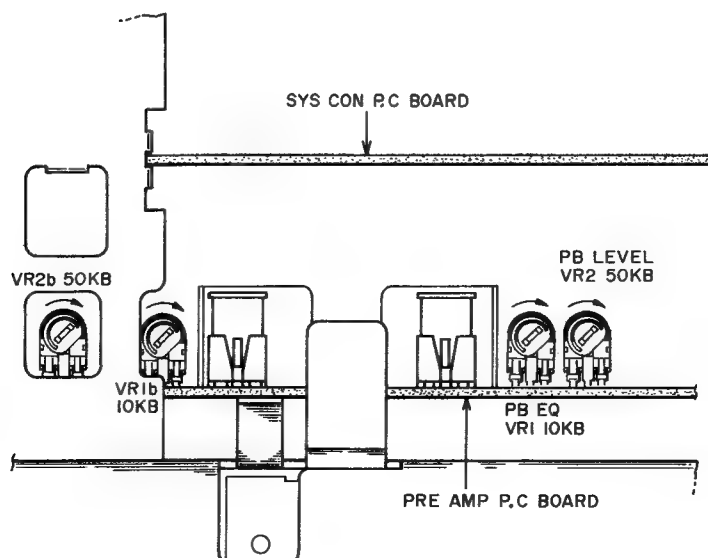


Fig. 16 Amplifier Adjustment Points (Right Side View)

| Step | Adjustment Item | Test Tape Supply Signal | Mode | Adjustment Point | Result | Remarks |
|------|--|--|--------|------------------|---|--|
| 1 | Playback Level | 333 Hz, 0 VU Test Tape | PB | VR2 50 kB | -5.5 ± 0.3 dBm (410 mV) | |
| 2 | Bar Meter Sensitivity | 1,000 Hz -5.5 dBm from oscillator | REC | VR3 5 kB | Let +1 light up. Then turn in a direction so that +1 disappears. Adjust at the point which +1 disappears. | |
| 3 | Playback Equalizer | 10 kHz Test Tape | PB | VR1 10 kB | -19.0 ± 0.5 dBm | |
| 4 | LN Position Frequency Response | Low Noise blank tape. 1,000 Hz 10,000 Hz -25.5 dBm recording | REC/PB | VR5 300 kB | 1,000 Hz to 10,000 Hz flat | |
| 5 | LH Position Frequency Response | LH Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording | REC/PB | VR6 30 kB | 1,000 Hz to 10,000 Hz flat | Set tape selector to LH Position |
| 6 | CrO ₂ Position Frequency Response | CrO ₂ Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording | REC/PB | VR7 30 kB | 1,000 Hz to 10,000 Hz flat | Set tape selector to CrO ₂ Position |
| 7 | Metal Position Frequency Response | Metal Blank tape 1,000 Hz 10,000 Hz -25.5 dBm recording | REC/PB | VR8 20 kB | 1,000 Hz to 10,000 Hz flat | Set tape selector to Metal Position |
| 8 | Recording Level | LN Blank tape 1,000 Hz -5.5 dBm recording | REC/PB | VR4 30 kB | -5.5 ± 0.3 dBm | Set the MIC Volume to Minimum |
| 9 | Distortion Factor Confirmation | 1,000 Hz -5.5 dBm recording | REC/PB | | LN < 0.8% LH < 0.8% CrO ₂ < 0.7% Metal < 0.6% | NOTE 6 |
| 10 | Bias Filter | No signal input | REC | FL 1 D07-003 | AC Voltmeter indicates to minimum | Set tape selector to Metal Position Set REC Volume to maximum NOTE 8 |
| 11 | 19 kHz Filter adjustment | 19 kHz from oscillator | REC | FL 2 D07-001 | AC Voltmeter indicates to minimum | Set Dolby NR Switch to ON Position. NOTES 7, 8. |

Chart-5

-
- NOTES:
1. The Output Level Control should be at maximum.
 2. Because each of these adjustments is vital to perfect Dolby NR circuit operation, ensure that they are carried out with as few errors as possible.
 3. Except for Step 5 thru 7, 9 and 10, set Tape Selector to LN Position.
 4. Except for Step 12, set Dolby NR switch to OFF Position.
 5. Use the following cassette measuring tapes:

| | | | | |
|-----------------------|---|--------|------|------|
| LN tape | : | TDK | D | C-60 |
| LH tape | : | Maxell | UD | C-60 |
| CrO ₂ tape | : | TDK | SA | C-60 |
| Metal tape | : | TDK | MA-C | C-60 |
 6. If it does not comply with the specifications, repeat Steps 4 to 8 and readjust.
 7. Adjust the oscillator's frequency to give a frequency counter reading of 19.00 kHz.
 8. Unless the core is moved unintentionally this adjustment is not necessary.

X. DC RESISTANCE OF VARIOUS COILS

| Parts | Designation | DC Resistance |
|-------------------------|-------------|---------------------|
| Recording/Playback Head | PR4-7 | 650 ohms $\pm 10\%$ |
| Erase Head | HF213151 | 3.7 ohms |
| Play Plunger Solenoid | 1253PLTI | 73 ohms $\pm 10\%$ |
| Rec Plunger Solenoid | 1037TLTI | 120 ohms $\pm 10\%$ |
| Pause Plunger Solenoid | 0520FLT | 600 ohms $\pm 10\%$ |
| Brake Plunger Solenoid | 0730PLTI | 200 ohms $\pm 10\%$ |

Chart-6

XI. CLASSIFICATION OF VARIOUS P.C BOARDS

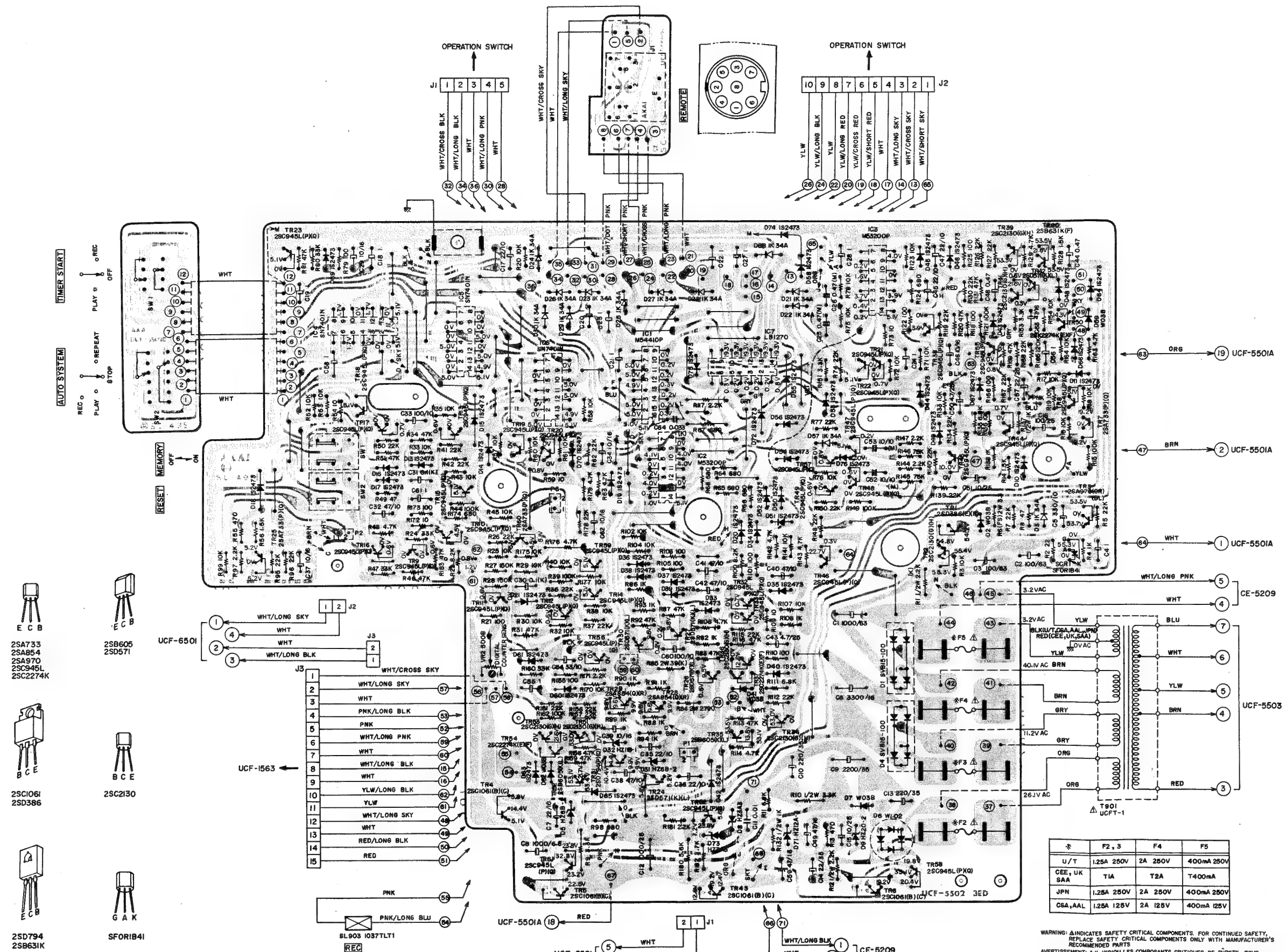
1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

| P.C Board Title | P.C Board Number |
|------------------------|------------------|
| Pre Amp P.C Board | UCF-5501A |
| Jack P.C Board | UCF-5501B |
| Sys. Con P.C Board | UCF-5502A |
| Switch P.C Board | UCF-5502B |
| Remo. Con P. C Board | UCF-5502C |
| Power Switch P.C Board | UCF-5503 |
| Reflector P.C Board | UCF-1550 |
| Detector P.C Board | UCF-1520 |
| Mecha P.C Board | UCF-1563 |
| Counter P.C Board | UCF-6501 |
| Meter P.C Board | CE-5209 |

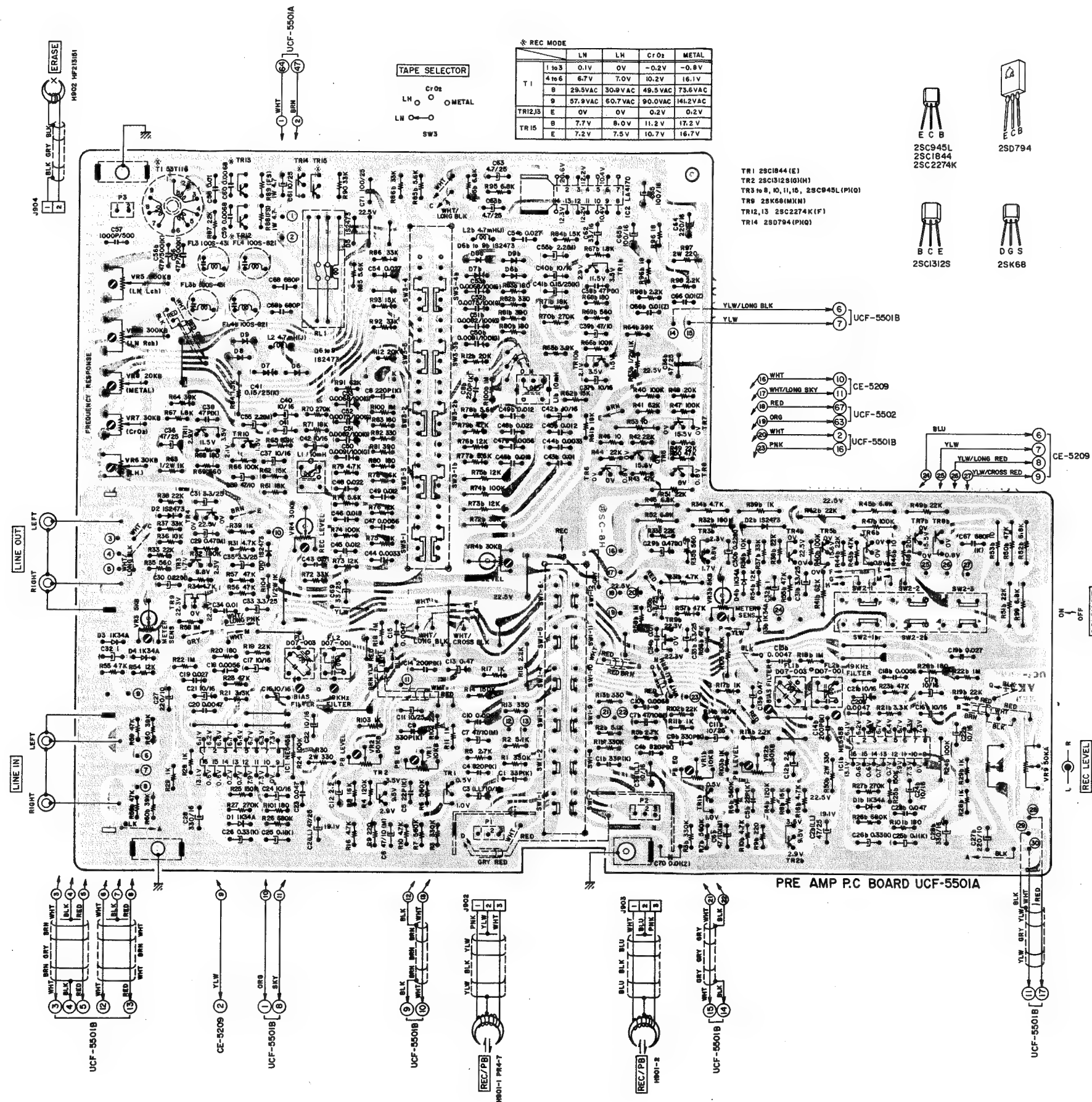
Chart-7

2. COMPOSITION OF VARIOUS P.C BOARDS

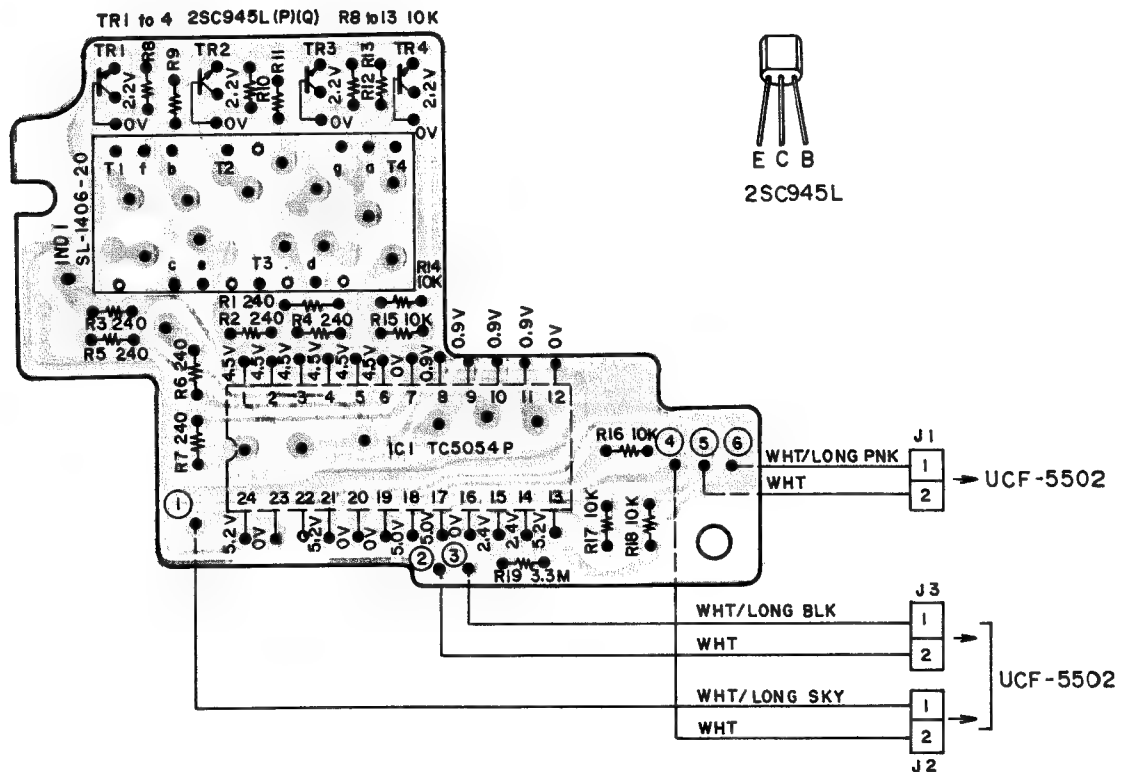
1) Sys. Con P.C Board UCF-5502A (3ED), Switch P.C Board UCF-5502B and Remote Control P.C Board UCF-5502C



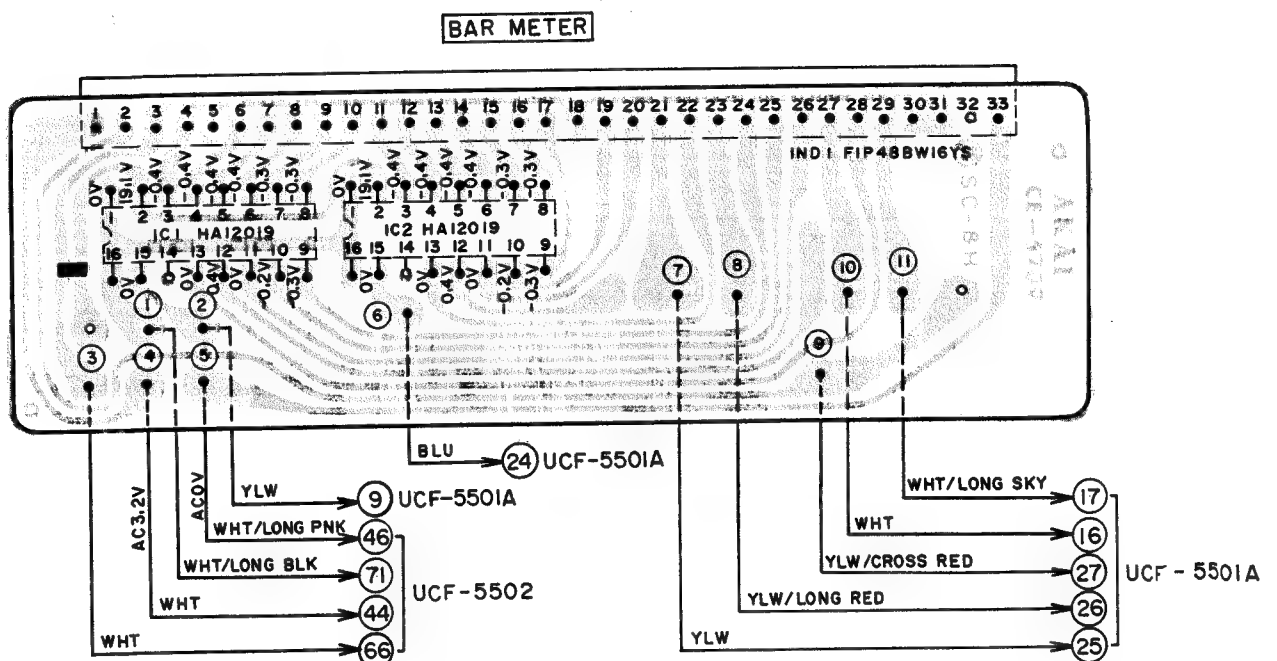
4



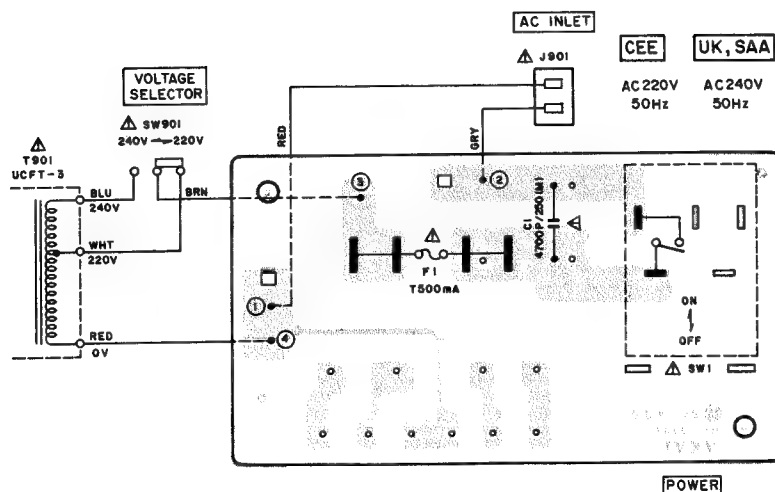
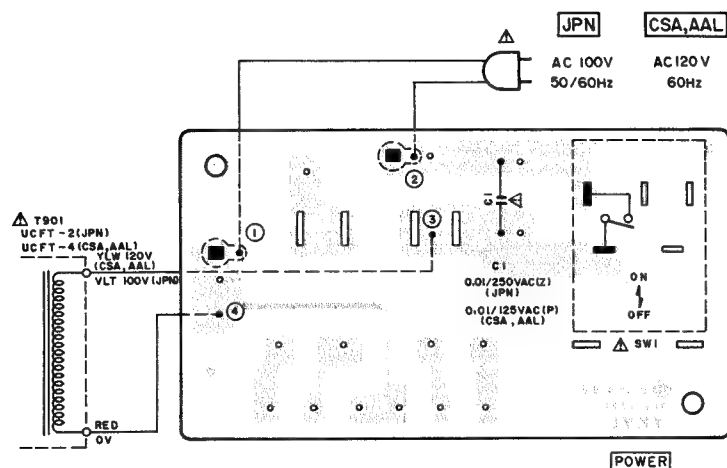
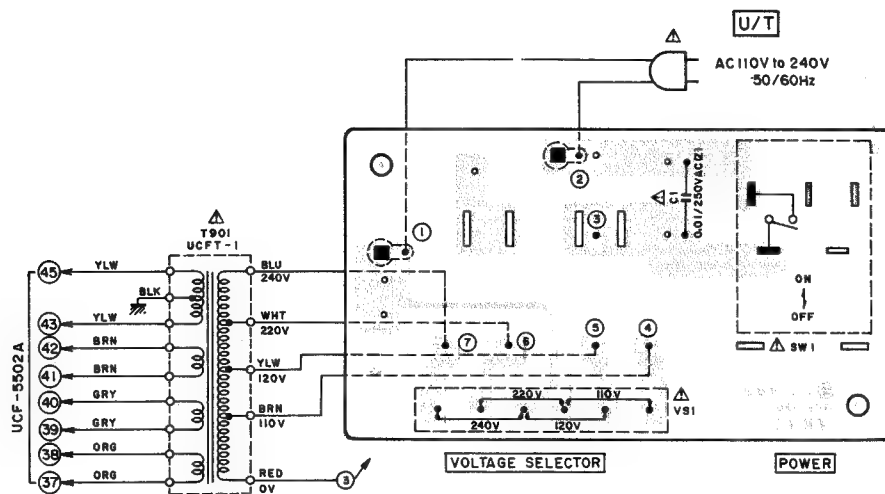
3) Counter P.C Board UCF-6501



4) Meter P.C Board CE-5209



7) Power Switch P.C Board UCF-5503



WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUOUS SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRÉ DE SÛRETÉ DE L'APPAREIL, NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

-MEMO-

—MEMO—

—MEMO—

-MEMO-

—MEMO—

SECTION 2

PARTS LIST

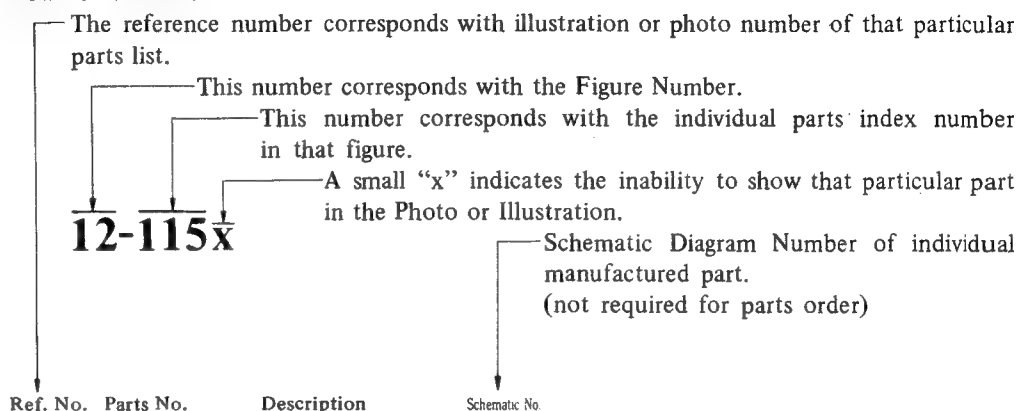
TABLE OF CONTENTS

| | |
|---|----|
| 1. RECOMMENDED SPARE PARTS LIST | 46 |
| 2. HEAD BASE BLOCK | 49 |
| 3. SUB FLAME BLOCK | 50 |
| 4. MECHA ASSEMBLY BLOCK (1) | 52 |
| 5. MECHA ASSEMBLY BLOCK (2) | 54 |
| 6. SYS. CON P.C BOARD (UCF-5502A) BLOCK | 55 |
| 7. PRE AMP P.C BOARD (UCF-5501A) BLOCK | 56 |
| 8. BAR METER P.C BOARD (CE-5209) BLOCK | 56 |
| 9. COUNTER P.C BOARD (UCF-6501) BLOCK | 56 |
| 10. MECHA P.C BOARD (UCF-1563) BLOCK | 56 |
| 11. AMP CHASSIS BLOCK | 57 |
| 12. FRONT PANEL BLOCK | 58 |
| 13. FINAL ASSEMBLY BLOCK | 59 |
| INDEX | 60 |

Resistor and Capacitor which is not listed in this parts list, please refer to
COMMON LIST FOR SERVICE PARTS.

HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read list.



| FLYWHEEL BLOCK #13 | | | |
|--------------------|--------|----------------------------|---------|
| 12-115x | 800425 | Flywheel Block Assy. Comp. | RDG #13 |
| 12-116 | 244506 | Flywheel Only | RD-233 |
| 12-117x | 244754 | Felt, Flywheel | RD-275 |
| 12-118 | 251324 | Main Metal Case | RD-236 |
| 12-119 | 253080 | Main Metal | RD-237 |

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.
It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

CAUTION:

1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Service Manual (Basic Parts list) may be partially changed, please use this parts list for all future reference.

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: ⚠ IL INDIQU LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

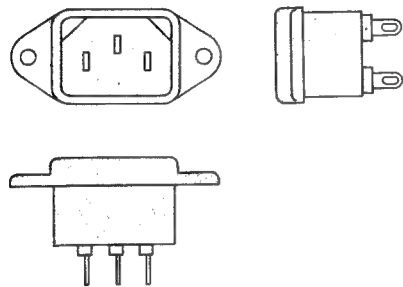
AC INLET SYSTEM

This model is equipped with an AC INLET SYSTEM. Please refer to the AC INLET SYSTEM CHART below for the specific type. By the AC INLET SYSTEM, AC (mains) cord can be connected to and disconnected from the model because the model is provided with socket exclusively for AC (mains) cord on its main body.

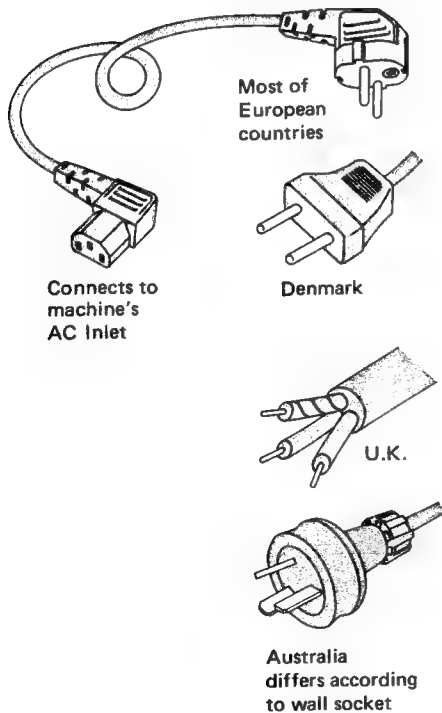
Please note, however, that certain models are not equipped with this system and has a built-in AC (mains) cord as before.

AC INLET SYSTEM CHART

CLASS I

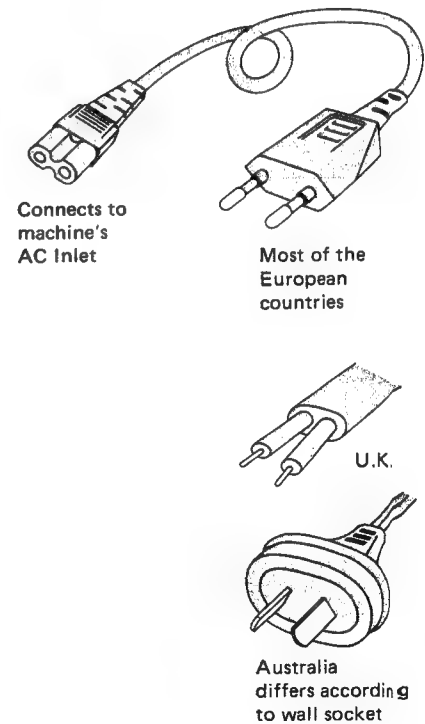
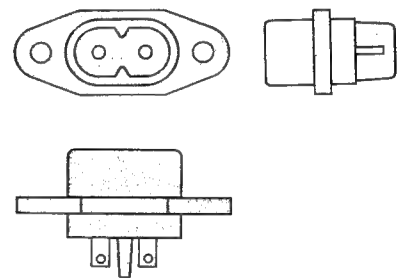


Picture 1
AC INLET
to be
installed
on machines



CLASS II

⊠ This mark indicating double insulation will be attached to machine's rear panel



Parts List for AC (mains) Cord Set

| Standard | | Description | Type of AC Inlet | Parts No. |
|----------|------|-------------------------|------------------|-----------|
| Class I | CEE | Cord Set CEE (3 cores) | 3P | EW302993 |
| | BEAB | Cord Set BEAB (3 cores) | 3P | EW302994 |
| | SAA | Cord Set SAA (3 cores) | 3P | EW302996 |
| | U/T | Cord Set U/T (3 cores) | 3P | EW302646 |
| Class II | CEE | Cord Set CEE (2 cores) | 2P | EW633144 |
| | BEAB | Cord Set BEAB (2 cores) | 2P | EW302995 |
| | SAA | Cord Set SAA (2 cores) | 2P | EW302991 |
| | U/T | Cord Set U/T (2 cores) | 2P | EW302899 |

1. RECOMMENDED SPARE PARTS LIST

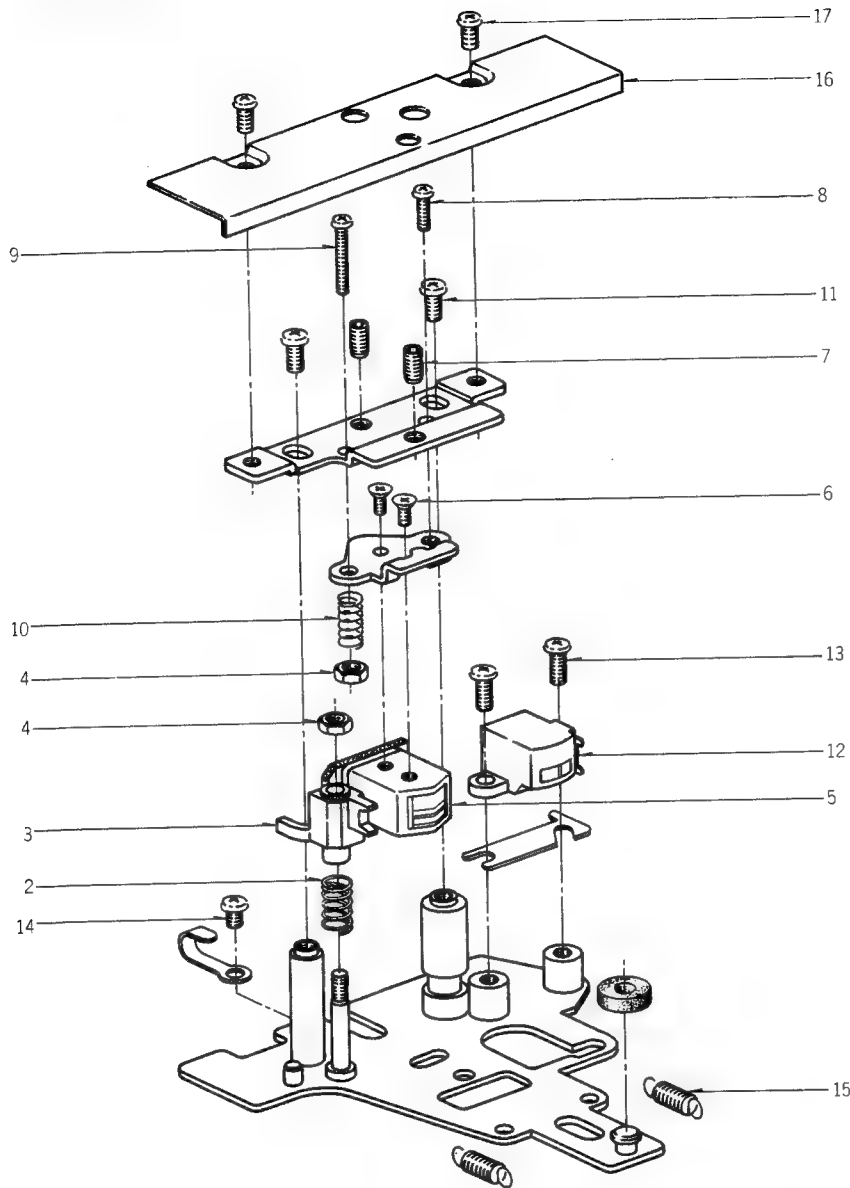
Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

| Parts No. | Description | Notes |
|-----------|--------------------------------------|--------------|
| BA323658 | Pre Amp PCB Comp. UC-F5 | |
| BA324095 | Sys. Con PCB Comp. UC-F5 (CEE) | CEE, UK, SAA |
| BA324094 | Sys. Con PCB Comp. UC-F5 (CSA) | CSA, AAL |
| BA324093 | Sys. Con PCB Comp. UC-F5 (U/T) | U/T, JPN |
| BF324381 | Flywheel Part UC-F5 | |
| BH323630 | Head Base BLK UC-F5 | |
| BL326857 | Pinch Roller Arm Assy UC-F5 | |
| BM324427 | Capstan Motor BLK W/Pulley UC-F5 | |
| BM323629 | Reel Motor BLK W/Pulley UC-F5 | |
| BT324069 | △ Power Trans. UCFT-1 | U/T |
| BT324070 | △ Power Trans. UCFT-2 | JPN |
| BT324071 | △ Power Trans. UCFT-3 | CEE, UK, SAA |
| BT324072 | △ Power Trans. UCFT-4 | CSA, AAL |
| EC316184 | Elect./C. (Vert.) 1000 μ F 25WV | |
| EC315968 | Elect./C. (Vert.) 1000 μ F 6.3WV | |
| EC315964 | Elect./C. (Vert.) 1000 μ F 63WV | |
| EC316230 | Elect./C. (Vert.) 2200 μ F 35WV | |
| EC315966 | Elect./C. (Vert.) 3300 μ F 16WV | |
| ED308952 | Germanium Diode 1K34A-LR | |
| ED324082 | LED, 4 Figures 7 Segments SL-1406-20 | |
| ED309357 | Silicon Diode SVB15-100 | |
| ED315960 | Silicon Diode WL02 | |
| ED306109 | Silicon Diode W03B | |
| ED624903 | Silicon Diode 1S2473 | |
| ED560913 | Silicon Diode 1S2473 VE | |
| ED316143 | Silicon Diode 1S2473-HS | |
| ED317594 | Silicon Diode 1S2473HL | |
| ED313513 | Thyristor SF0R1B41 | |
| ED319176 | Zener Diode HZ12A-3 | |
| ED324013 | Zener Diode HZ20-2 | |
| ED313623 | Zener Diode HZ22-3 | |
| ED326139 | Zener Diode HZ3A-3 | |
| ED309069 | Zener Diode HZ6B-2 | |
| EF309392 | △ Fuse 1.25A 125V | CSA, AAL |
| EF306949 | △ Fuse 1.25A 250V | U/T, JPN |
| EF306954 | △ Fuse 2A 125V | CSA, AAL |
| EF306950 | △ Fuse 2A 250V | U/T, JPN |
| EF308848 | △ Fuse 400mA 125V | CSA, AAL |
| EF309389 | △ Fuse 400mA 250V | U/T, JPN |
| EF300590 | △ Fuse (EAWK) 400MAT | CEE, UK, SAA |

| Parts No. | Description | Notes |
|-----------|--|-------------------|
| EF623103 | △ Fuse (SEMKO T) 1AT | CEE, UK, SAA |
| EF601301 | △ Fuse (SEMKO T) 2AT | CEE, UK, SAA |
| EF593706 | △ Fuse (SEMKO T) 500MAT | CEE, UK, SAA |
| EI315799 | IC HA12019 | |
| EI322490 | IC HD7401P | |
| EI306141 | IC LA4170 | |
| EI316170 | IC LB1270 | |
| EI308936 | IC M54410P | |
| EI605013 | IC NE545B | |
| EI633982 | IC SN7400N | |
| EI323780 | IC TC5054P | |
| EI324061 | Mark Sensor NJL5146E | |
| EJ301513 | △ Inlet 2P | CEE, UK, SAA |
| EJ324276 | DIN Socket 8P TCS4680-01-111 | |
| EJ316156 | Head Phone Jack HLJ0315-01-020 | |
| EJ321328 | Jack HLJ0345-01-010 | |
| EL317599 | Lamp (Lead Type) 6.3V 100mA | |
| EM315859 | Bar Meter FIP48CW16YS | |
| EO323789 | OSC Coil 53T116 | |
| EP324062 | Plunger 0520FLT | |
| EP313497 | Plunger 0730 PLTI | |
| EP324278 | Plunger 1253PLTI | |
| EP308973 | Relay LAB2NS DC24V | |
| ER311503 | Cement/R. (Wire Wounded) 10W 20 ohms (K) | |
| ES315159 | △ Push SW. SDG1P (JPN) | JPN |
| ES665875 | △ Push SW. SDG1P-J TV-3 UL/CSA | CSA, AAL |
| ES665807 | △ Push SW. SDG5P-E 5A/80A 250V | U/T, CEE, UK, SAA |
| ES324063 | Leaf SW. BSW-47P | |
| ES323786 | Push SW. J-K2083 | |
| ES324009 | Push SW. SUF20 | |
| ES324271 | Rotary Slide SW. SRZR104 | |
| ES324008 | Rotary SW. SBU1024x01 | |
| ES324007 | Rotary SW. SRU1023S | |
| ES312050 | Slide SW. CL-212K12A | |
| ES306430 | Slide SW. J-S4013 #01 | |
| ET301464 | FET 2SK68 (M)(N) | |
| ET554657 | Transistor 2SA733 (P)(Q) | |
| ET315958 | Transistor 2SA854 (Q)(R) | |
| ET305463 | Transistor 2SA970 (GR) (BL) | |
| ET666415 | Transistor 2SB605 (K)(L) | |

| Parts No. | Description | Notes |
|-----------|--|----------|
| ET327714 | Transistor 2SB631K (F) | |
| ET312497 | Transistor 2SC1061 (B)(C) YC-40B | |
| ET603257 | Transistor 2SC1312S (G)(H) | |
| ET311832 | Transistor 2SC1844 (E) | |
| ET308937 | Transistor 2SC2130 (G)(H) | |
| ET308937 | Transistor 2SC2130 (G)(H) | |
| ET309353 | Transistor 2SC2274 (E)(F) | |
| ET308977 | Transistor 2SC2274K (F) | |
| ET639437 | Transistor 2SC945L (Q)(P) | |
| ET313514 | Transistor 2SD386 (E)(F) | |
| ET666404 | Transistor 2SD571 (K)(L) | |
| ET307349 | Transistor 2SD794 (P)(Q) | |
| EV324396 | Double-Axial 2-Throw/Vol. DM20R545A-50kAx2 | |
| EV324397 | Single-Axial 2-Throw/Vol. GN20R522-10kBx2 | |
| EW306427 | △ AC Cord (JPN) | |
| EW306428 | △ AC Cord (U/T) | |
| EW305691 | △ AC Cord CUL | CSA, AAL |
| EW322400 | △ AC Cord Set Basec 2 Cores | UK |
| EW315767 | △ AC Cord Set CEE 2 Cores | CEE |
| EW322401 | △ AC Cord Set SAA 2 Cores | SAA |
| HE321585 | Erase Head HF213151 | |
| HP319079 | REC/PB Head PR4-7 | |
| MB323681 | Capstan Belt | |
| MB323686 | Detection Belt | |
| MI309414 | Idler Part | |
| MT312122 | Reel Table Part GXC-715D | |
| MV309146 | Main Case | |

2. HEAD BASE BLOCK

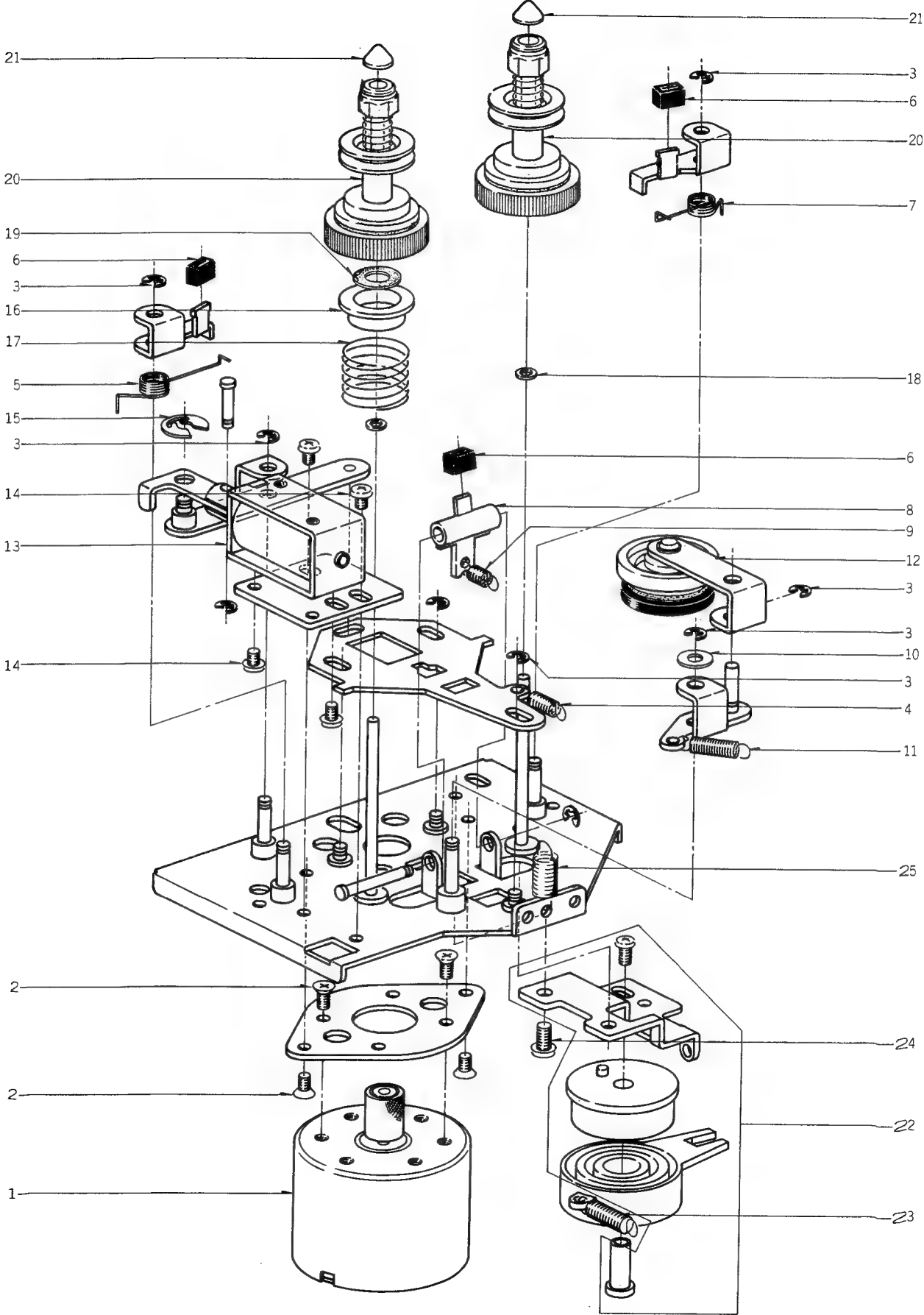


HEAD BASE BLOCK

| Ref. No. | Parts No. | Description | Schematic No. |
|----------|-----------|---------------------------------------|----------------|
| 2-1x | BH323630 | Head Base BLK UC-F5 | |
| 2-2 | ZG289236 | Tape Guide Spring | CM-0005 |
| 2-3 | HZ309128 | Tape Guide | CF-0006 |
| 2-4 | ZW591265 | Nut M2.3, #3 | |
| 2-5 | HP319079 | REC/PB Head PR4-7 | |
| 2-6 | ZS524812 | Screw, Countersunk 2x4 | |
| 2-7 | ZS356804 | Set Screw, Hexagon Socket 3x4 (CUP/P) | |
| 2-8 | ZS590804 | Screw, pan 2.3x6 | |
| 2-9 | ZS462947 | Screw, pan 2.3x12 | |
| 2-10 | ZG465636 | Angle Adjust Spring | CG-0029 |
| 2-11 | ZS419782 | Screw, bind 2.6x5 | |
| 2-12 | HE321585 | Erase Head HF213151 | 37-2-33 |
| 2-13 | ZS464692 | Screw, bind 2.3x6 | |
| 2-14 | ZS417161 | Screw, pan 2.3x4 | |
| 2-15 | ZG323715 | P Spring | UCF-1548 |
| 2-16 | TC323725 | Head Decoration Plate | UCF-1557, 1558 |
| 2-17 | ZS267254 | Screw, pan 2.3x4 (Black) | |

When ordering parts, please quote Parts Number, Description and Model Number.

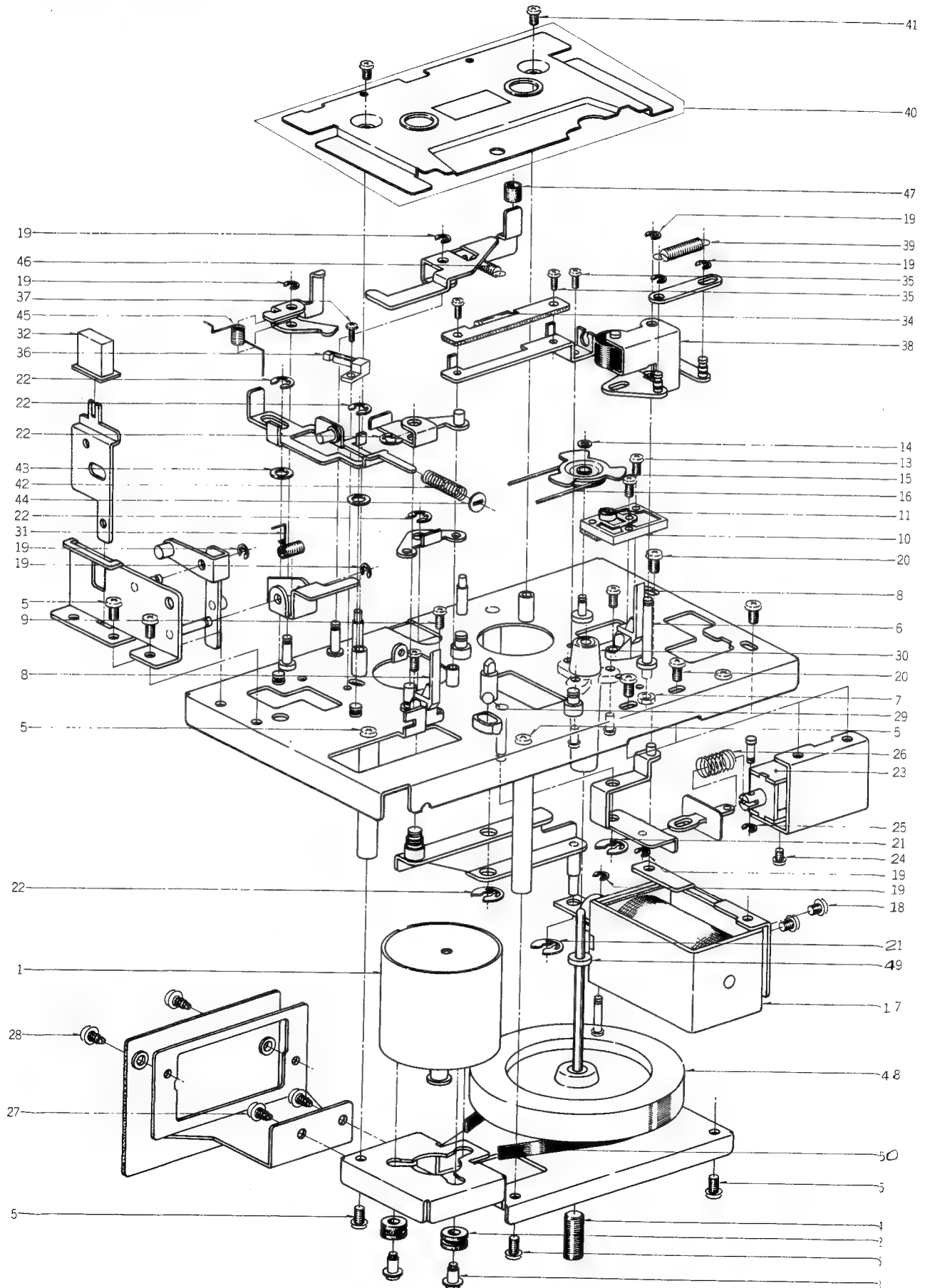
3. SUB FRAME BLOCK



SUB FRAME BLOCK

| Ref. No. | Parts No. | Description | Schematic No. |
|-------------------------|-----------|---------------------------------------|------------------|
| REEL MOTOR BLOCK | | | |
| 3-1 | BM323629 | Reel Motor BLK W/Pulley UC-F5 | UCF-7002 |
| 3-2 | ZS430413 | Screw, Countersunk 2.6x4 | |
| SUB FRAME BLOCK | | | |
| 3-3 | ZW270088 | 'E' Ring 1.9M | 6-1-9 |
| 3-4 | ZG365433 | Idler Tension Spring | RCC-1365 |
| 3-5 | ZG309225 | Brake Spring (L) | CF-2022 |
| 3-6 | MB282104 | Brake Rubber | CN-1020 |
| 3-7 | ZG309226 | Brake Spring (R) | CF-2023 |
| 3-8 | ML309229 | Pad Lever | CF-2035 |
| 3-9 | ZG469315 | Take-up Lever Spring | CG-1091 |
| 3-10 | ZW432753 | Washer (PBP) D3.1x8x0.2t | |
| 3-11 | ZG322048 | Idler Spring (B) | CX-1105 |
| 3-12 | MI309414 | Idler Part | 13-2-42 |
| 3-13 | EP313497 | Plunger 0730PLTI | 44-1-108 |
| 3-14 | ZS592378 | Screw, pan 2.6x3 | |
| 3-15 | ZW290283 | 'U' Ring 2.85M | 6-1-1 |
| 3-16 | TC317433 | Torque Drum | CU-2010 |
| 3-17 | ZG323736 | Back Tension Spring | UCF-2502 |
| 3-18 | ZW381644 | Washer (Polyslider) D2.1x4.0x0.13t | |
| 3-19 | ZW322912 | Oil Washer | CU-2013 |
| 3-20 | MT312122 | Reel Table Part GXC-715D | 13-2-41 |
| 3-21 | MT305793 | Reel Cap | CF-2039 |
| 3-22 | TC323627 | Clutch Bracket Assy | UCF-2503 |
| 3-23 | ZG313001 | Coil Spring T1-4.0/0.4-22.4 | |
| 3-24 | ZS417216 | Screw, pan 3x4 | |
| 3-25 | ZG595506 | Stop Spring | CH-3007 |

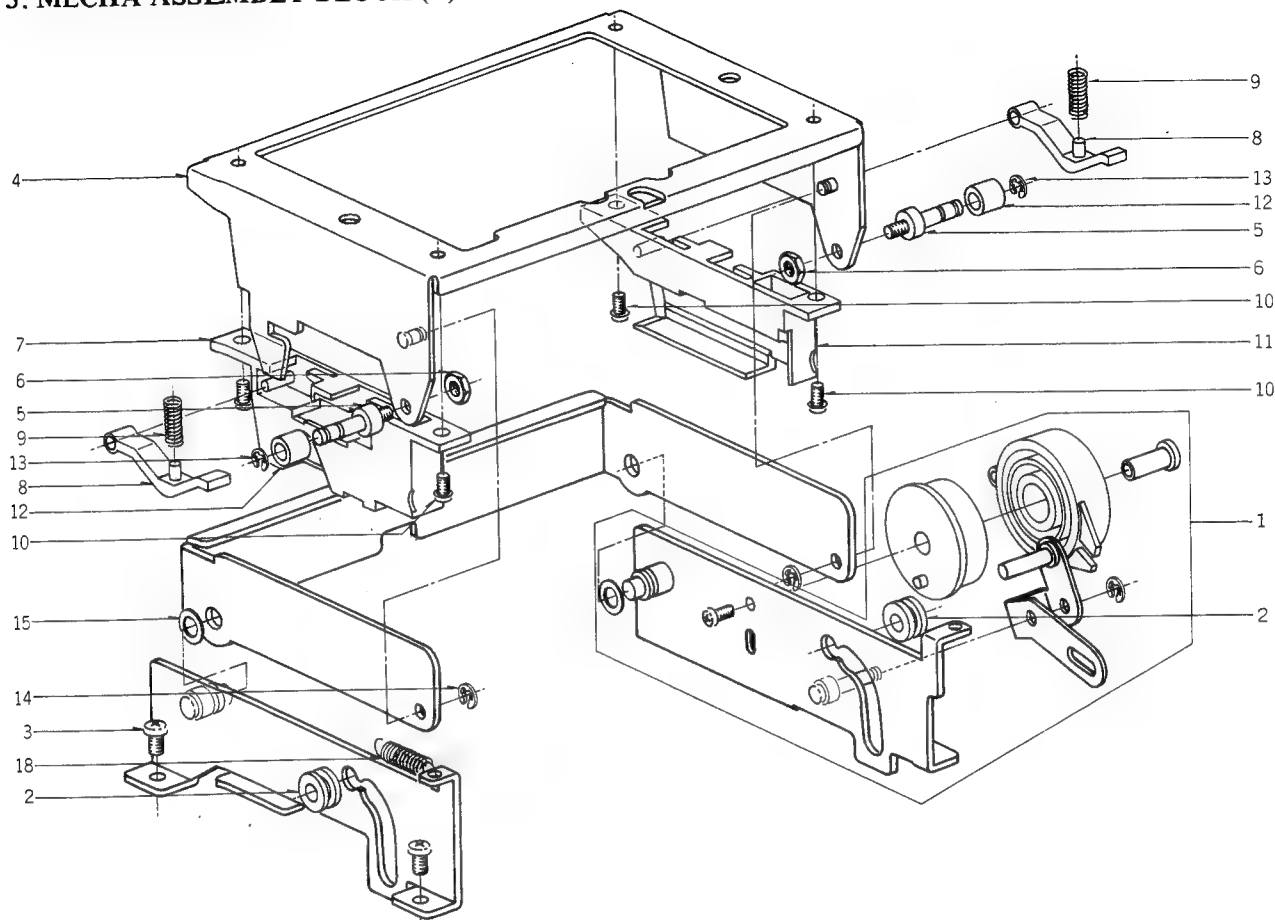
4. MECHA ASSEMBLY BLOCK (1)



MECHA ASSEMBLY BLOCK (1)

| Ref. No. | Parts No. | Description | Schematic No. |
|-----------------------------|-----------|-------------------------------------|---------------|
| CAPSTAN MOTOR BLOCK | | | |
| 4-1 | BM324427 | Capstan Motor BLK W/Pulley UC-F5 | UCF-7001 |
| 4-2 | MB282778 | Rubber Bush | CN-7003 |
| 4-3 | ZS321338 | Motor Screw | 7-1-75 |
| 4-4 | ZS302318 | Hold Screw | CI-1258 |
| MECHA ASSEMBLY BLOCK | | | |
| 4-5 | ZS422076 | Screw, pan 3x5 | |
| 4-6 | MS309141 | Pinch Roller Lever Shaft | CF-1011 |
| 4-7 | ZW590207 | Nut M3 #3 | |
| 4-8 | TC309145 | Cassette Guide | CF-1015 |
| 4-9 | ZS479474 | Screw, pan 2.6x5 | |
| 4-10 | TC323621 | Detection Base Assy | UCF-1573 |
| 4-11 | E1324061 | Mark Sensor NJL5146E | 45-18-2 |
| 4-12x | ZS609074 | Tapping Screw, #2 pan 2x5 | |
| 4-13 | ZS537085 | Screw, bind 2x5 | |
| 4-14 | ZW321437 | Push Washer | CE-1077 |
| 4-15 | MR323683 | Detection Pulley | UCF-1519 |
| 4-16 | MB323686 | Detection Belt | UCF-1521 |
| 4-17 | EP324278 | Plunger 1253PLTI | 44-1-128 |
| 4-18 | ZS324374 | Screw, pan 3x3.5 (Blue) | |
| 4-19 | ZW270088 | 'E' Ring 1.9M | 6-1-9 |
| 4-20 | ZS323728 | Screw, bind 3x5 | |
| 4-21 | ZW290283 | 'U' Ring 2.85M | 6-1-1 |
| 4-22 | ZW270101 | 'E' Ring 3M | 6-1-9 |
| 4-23 | EP324062 | Plunger 0520FLT | 44-1-129 |
| 4-24 | ZS477876 | Screw, pan 2x3 | |
| 4-25 | ZW356657 | 'E' Ring 1.5M | 6-1-9 |
| 4-26 | ZG370350 | Reel Table Spring | RCC-1344 |
| 4-27 | ZS325495 | Tapping Screw, #2 BR 3x6 | |
| 4-28 | ZS447840 | Tapping Screw, #2 BR 3x8 | |
| 4-29 | MV269965 | Steel Ball D4 | |
| 4-30 | MV309146 | Main Case | CY-1042 |
| 4-31 | ZG323699 | Eject Lock Spring | UCF-1532 |
| 4-32 | SB323696 | Button (A) | UCF-1530 |
| 4-33x | SB323697 | Button (A-BL) | UCF-1530 |
| 4-34 | EL317599 | Lamp (Lead Type) 6.3V 100mA | 28-2-80 |
| 4-35 | ZS608095 | Screw, pan 2x5 | |
| 4-36 | ES324063 | Leaf SW. BSW-47P | 25-10-41 |
| 4-37 | ZS464703 | Screw, bind 2x4 | |
| 4-38 | BL326857 | Pinch Roller Arm Assy UC-F5 | |
| 4-39 | ZG323714 | Pinch Roller Spring | UCF-1547 |
| 4-40 | TC324289 | Decoration Plate Part UC-F5 | UCF-1581 |
| 4-41 | ZS318208 | Screw, Truss 2.3x4 (Black) | |
| 4-42 | ZG324400 | Slide Spring | UCF-1567 |
| 4-43 | ZW322525 | Washer (PBP) D4.1x7x0.2t | |
| 4-44 | ZW323734 | Stop Washer | UCF-1566 |
| 4-45 | ZG323702 | REC Safety Spring | UCF-1535 |
| 4-46 | ZG312964 | Coil Spring T1-3.2/0.45-18.0 | |
| 4-47 | TC324401 | Cassette Holder Cap | UCF-1564 |
| 4-48 | BF324381 | Flywheel Part UC-F5 | UCF-1515 |
| 4-49 | ZW309295 | Thrust Washer | CY-1037 |
| 4-50 | MB323681 | Capstan Belt | UCF-1517 |

5. MECHA ASSEMBLY BLOCK (2)



MECHA ASSEMBLY BLOCK (2)

| Ref. No. | Parts No. | Description | Schematic No. |
|-----------------------------|-----------|-----------------------------|---------------|
| EJECT BASE (R) BLOCK | | | |
| 5-1 | BZ323633 | Eject Base (R) BLK | UCF-1571 |
| MECHA ASSEMBLY BLOCK | | | |
| 5-2 | MB282778 | Rubber Bush | CN-7003 |
| 5-3 | ZS422076 | Screw, pan 3x5 | UCF-1551 |
| 5-4 | TC324298 | LID Frame Part UC-F5 | UCF-1552 |
| 5-5 | MH323720 | Eject Roller Prop | |
| 5-6 | ZW590207 | Nut M3 #3 | CU-3016 |
| 5-7 | TC317454 | Cassette Holder (A) | CF-1072 |
| 5-8 | TC309206 | Setting Shoe | |
| 5-9 | ZG313165 | Coil Spring C-3.5/0.32-10.0 | |
| 5-10 | ZS608185 | Screw, pan 2.6x4 (Black) | CU-3017 |
| 5-11 | TC317455 | Cassette Holder (B) | UCF-1554 |
| 5-12 | MR323722 | Eject Roller | |
| 5-13 | ZW357164 | 'E' Ring 2.3M | 6-1-9 |
| 5-14 | ZW270088 | 'E' Ring 1.9M | 6-1-9 |
| 5-15 | ZW322525 | Washer (PBP) D4.1x7x0.2t | |
| 5-16x | ZW649991 | Washer (PBP) D4.1x7x0.3t | |
| 5-17x | ZW589893 | Washer (PBP) D4.1x7x0.4t | |
| 5-18 | ZG312999 | Coil Spring T1-4.0/0.4-20.0 | |

6. SYS. CON P.C BOARD (UCF-5502A) BLOCK

| Symbol No. | Parts No. | Description | Schematic No. | Symbol No. | Parts No. | Description | Schematic No. |
|------------|-----------|---|---------------|------------|-----------|--------------------------------------|---------------|
| 6-1 | BA324093 | Sys. Con PCB Comp. UC-F5 (U/T) (U/T,JPN) | UCF-5502A | 6-D60,61 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 |
| 6-2 | BA324094 | Sys. Con PCB Comp. UC-F5 (CSA) (CSA,AAL) | UCF-5502A | 6-D62 | ED306109 | Silicon Diode W03B | 45-2-78 |
| 6-3 | BA324095 | Sys. Con PCB Comp. UC-F5 (CEE) (CEE,UK,SAA) | UCF-5502A | 6-D63to67 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 |
| 6-IC1 | EI308936 | IC M54410P | 45-8-304 | 6-D68 | ED308952 | Germanium Diode | 45-3-47 |
| 6-IC2,3 | EI633982 | IC SN7400N | 45-8-142 | | | 1K34A-LR | |
| 6-IC4to6 | EI322490 | IC HD7401P | 45-8-409 | 6-D69,70 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 |
| 6-IC7 | EI316170 | IC LB1270 | 45-8-369 | 6-D71 | ED319176 | Zener Diode HZ12A-3 | 45-6-80 |
| 6-TR1 | ET313514 | Transistor 2SD386(E)(F) | 45-1-352 | 6-D72 | ED316143 | Silicon Diode 1S2473-HS | 45-3-53 |
| 6-TR2 | ET308937 | Transistor 2SC2130(G)(H) | 45-1-317 | 6-D73 | ED326139 | Zener Diode HZ3A-3 | 45-6-80 |
| 6-TR3 | ET305463 | Transistor 2SA970 (GR)(BL) | 45-1-303 | 6-D74 | ED624903 | Silicon Diode 1S2473 | 45-3-28 |
| 6-TR4to6 | ET312497 | Transistor 2SC1061 (B)(C) YC-40B | 45-1-96 | 6-D75,76 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 |
| 6-TR7 | ET554657 | Transistor 2SA733(P)(Q) | 45-1-124 | 6-SW1-2 | ES324009 | Push SW. SUF20 | 25-5-352 |
| 6-TR8to23 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 | 6-VR2 | EV321682 | Semi-Fixed/Vol. D8 Axial 500 ohms B | 36-10-280 |
| 6-TR24 | ET666404 | Transistor 2SD571(K)(L) | 45-1-218 | 6-SCR1 | ED313513 | Thyristor SF0R1B41 | 45-13-4 |
| 6-TR25 | ET554657 | Transistor 2SA733(P)(Q) | 45-1-124 | 6-R1 | ER312487 | Metal Oxide Film/R. 2W 2.2k (K) | 35-15-8 |
| 6-TR26,27 | ET666404 | Transistor 2SD571(K)(L) | 45-1-218 | 6-R6 | ER319177 | Metal Film/R. F 2W 3.3 ohms (J) | 35-19-7 |
| 6-TR28,29 | ET315958 | Transistor 2SA854(Q)(R) | 45-1-326 | 6-R85 | ER324081 | Metal Oxide Film/R. F 2W 39 ohms (K) | 35-15-8 |
| 6-TR30 | ET666404 | Transistor 2SD571(K)(L) | 45-1-218 | 6-C1 | EC315964 | Elect./C. (Vert.) 1000μF 63WV | 24-12-46 |
| 6-TR31 | ET307349 | Transistor 2SD794(P)(Q) | 45-1-334 | 6-C6 | EC315966 | Elect./C. (Vert.) 3300μF 16WV | 24-12-46 |
| 6-TR32,33 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 | 6-C8 | EC315968 | Elect./C. (Vert.) 1000μF 6.3WV | 24-12-46 |
| 6-TR34 | ET308937 | Transistor 2SC2130(G)(H) | 45-1-317 | 6-C9 | EC316230 | Elect./C. (Vert.) 2200μF 35WV | 24-12-46 |
| 6-TR35 | ET666415 | Transistor 2SB605(K)(L) | 45-1-225 | 6-C12 | EC316184 | Elect./C. (Vert.) 1000μF 25WV | 24-12-46 |
| 6-TR36 | ET308937 | Transistor 2SC2130(G)(H) | 45-1-317 | 6-C25,26 | EC308940 | NP/C. 0.47μF(M) 50WV | 24-17-31 |
| 6-TR37 | ET309353 | Transistor 2SC2274(E)(F) | 45-1-335 | 6-C52,53 | EC324076 | NP/C. 10μF(M) 10WV | 24-17-31 |
| 6-TR38 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 | 6-4 | ZS421806 | Screw, pan 3x8 | |
| 6-TR39 | ET308937 | Transistor 2SC2130(G)(H) | 45-1-317 | 6-5 | ZW273756 | Nut, #1 M3 | |
| 6-TR40 | ET327714 | Transistor 2SB631K(F) | 45-1-277 | 6-6 | ZW563218 | Washer (Bake) | |
| 6-TR41 | ET308937 | Transistor 2SC2130(G)(H) | 45-1-317 | | | D3.2x10x1t | |
| 6-TR42 | ET666404 | Transistor 2SD571(K)(L) | 45-1-218 | 6-7 | ZS379350 | Screw, pan 3x6 | |
| 6-TR43 | ET312497 | Transistor 2SC1061(B)(C) YC-40B | 45-1-96 | | | | |
| 6-TR44to49 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 | | | | |
| 6-TR50 | ET309353 | Transistor 2SC2274(E)(F) | 45-1-335 | | | | |
| 6-TR51 | ET308937 | Transistor 2SC2130(G)(H) | 45-1-317 | | | | |
| 6-TR52 | ET666415 | Transistor 2SB605(K)(L) | 45-1-225 | | | | |
| 6-TR53 | ET308937 | Transistor 2SC2130(G)(H) | 45-1-317 | | | | |
| 6-TR54 | ET309353 | Transistor 2SC2274(E)(F) | 45-1-335 | | | | |
| 6-TR55to59 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 | | | | |
| 6-TR60 | ET554657 | Transistor 2SA733(P)(Q) | 45-1-124 | | | | |
| 6-TR61,62 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 | | | | |
| 6-D1 | ED309357 | Silicon Diode SVB15-100 | 45-2-83 | | | | |
| 6-D2 | ED306109 | Silicon Diode W03B | 45-2-78 | | | | |
| 6-D3 | ED308952 | Germanium Diode | 45-3-47 | | | | |
| | | 1K34A-LR | | | | | |
| 6-D4 | ED309357 | Silicon Diode SVB15-100 | 45-2-83 | | | | |
| 6-D5 | ED309069 | Zener Diode HZ6B-2 | 45-6-80 | | | | |
| 6-D6 | ED315960 | Silicon Diode WL02 | 45-2-93 | | | | |
| 6-D7 | ED306109 | Silicon Diode W03B | 45-2-78 | | | | |
| 6-D8 | ED313623 | Zener Diode HZ22-3 | 45-6-80 | | | | |
| 6-D9 | ED324013 | Zener Diode HZ20-2 | 45-6-80 | | | | |
| 6-D10to14 | ED560913 | Silicon Diode 1S2473 VE | 45-3-23 | | | | |
| 6-D15 | ED317594 | Silicon Diode 1S2473HL | 45-3-60 | | | | |
| 6-D16,17 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 | | | | |
| 6-D18 | ED316143 | Silicon Diode 1S2473-HS | 45-3-53 | | | | |
| 6-D19,20 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 | | | | |
| 6-D21to30 | ED308952 | Germanium Diode | 45-3-47 | | | | |
| | | 1K34A-LR | | | | | |
| 6-D31 | ED309069 | Zener Diode HZ6B-2 | 45-6-80 | | | | |
| 6-D32 | ED319176 | Zener Diode HZ12A-3 | 45-6-80 | | | | |
| 6-D33to40 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 | | | | |
| 6-D41 | ED306109 | Silicon Diode W03B | 45-2-78 | | | | |
| 6-D42 | ED316143 | Silicon Diode 1S2473-HS | 45-3-53 | | | | |
| 6-D43to46 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 | | | | |
| 6-D48to54 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 | | | | |
| 6-D55 | ED317594 | Silicon Diode 1S2473HL | 45-3-60 | | | | |
| 6-D56 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 | | | | |
| 6-D57 | ED308952 | Germanium Diode | 45-3-47 | | | | |
| | | 1K34A-LR | | | | | |
| 6-D58 | ED560913 | Silicon Diode 1S2473VE | 45-3-23 | | | | |
| 6-D59 | ED306109 | Silicon Diode W03B | 45-2-78 | | | | |

When ordering parts, please quote Parts Number, Description and Model Number.

7. PRE AMP P.C BOARD (UCF-5501A) BLOCK

| Symbol No. | Parts No. | Description | Schematic No. |
|------------|-----------|--|---------------|
| 7-1 | BA323658 | Pre Amp PCB Comp. UC-F5 | UCF-5501A |
| 7-IC1 | EI605013 | IC NE545B | 45-8-117 |
| 7-IC2 | EI306141 | IC LA4170 | 45-8-305 |
| 7-TR1 | ET311832 | Transistor 2SC1844(E) | 45-1-327 |
| 7-TR2 | ET603257 | Transistor 2SC1312S(G)(H) | 45-1-182 |
| 7-TR3to8 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 |
| 7-TR9 | ET301464 | FET 2SK68(M)(N) | 45-12-14 |
| 7-TR10,11 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 |
| 7-TR12,13 | ET308977 | Transistor 2SC2274K(F) | 45-1-335 |
| 7-TR14 | ET307349 | Transistor 2SD794(P)(Q) | 45-1-334 |
| 7-TR15 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 |
| 7-D1 | ED308952 | Germanium Diode 1K34A-LR | 45-3-47 |
| 7-D2 | ED560913 | Silicon Diode 1S2473 VE | 45-3-23 |
| 7-D3,4 | ED308952 | Germanium Diode 1K34A-LR | 45-3-47 |
| 7-D5to10 | ED560913 | Silicon Diode 1S2473 VE | 45-3-23 |
| 7-SW1 | ES312050 | Slide SW. CL-212K12A | 25-3-163 |
| 7-SW2 | ES323786 | Push SW. J-K2083 | 25-5-351 |
| 7-SW3 | ES324271 | Rotary Slide SW. SRZR104 | 25-6-185 |
| 7-VR1 | EV324366 | Semi-Fixed/Vol. V10K8-1-2 B10K | 36-10-255 |
| 7-VR2 | EV306737 | Semi-Fixed/Vol. V10K8-1-2 50k Ω | 36-10-255 |
| 7-VR3 | EV315412 | Semi-Fixed/Vol. D8 Axial 5k Ω | 36-10-280 |
| 7-VR4 | EV322416 | Semi-Fixed/Vol. D8 Axial 30k Ω | 36-10-280 |
| 7-VR5 | EV322366 | Semi-Fixed/Vol. D10 Axial 300k Ω | 36-10-281 |
| 7-VR6,7 | EV322416 | Semi-Fixed/Vol. D8 Axial 30k Ω | 36-10-280 |
| 7-VR8 | EV315414 | Semi-Fixed/Vol. D8 Axial 20k Ω | 36-10-280 |
| 7-VR9 | EV324396 | Double-Axial 2-Throw/Vol. DM20R545A-50kA \times 2 | 36-18-21 |
| 7-RL1 | EP308973 | Relay LAB2NS DC24V | 47-2-30 |
| 7-L1 | EO321336 | Vari. Inductor FE-002 10MH | 23-1-333 |
| 7-L2 | EO321295 | Ferri Inductor RC875 4.7MH (J) | 23-1-335 |
| 7-T1 | EO323789 | OSC Coil 53T116 | 23-4-57 |
| 7-FL1 | ER309120 | Dolby Filter D07-003 | 53-1-143 |
| 7-FL2 | ER309119 | Dolby Filter D07-001 | 53-1-143 |
| 7-FL3 | EO315758 | Trap Coil 100S-431 | 23-1-331 |
| 7-FL4 | EO323790 | Trap Coil 100S-821 | 23-1-404 |
| 7-J1 | EJ323788 | Pin Jack 4P | 31-5-162 |
| 7-R30 | ER301441 | Metal Oxide Film/R. 2W 330 ohm (J) | 35-15-8 |
| 7-R88,89 | ER327441 | Metal Oxide Film/R. F 1W 4.7 ohms (J) | 35-19-1 |
| 7-R98 | ER409814 | Metal Oxide Film/R. 2W 220 ohm (K) | 35-15-8 |
| 7-C4 | EC305679 | Styrol/C. 820PF(K) 50WV | 24-11-14 |
| 7-C8 | EC306986 | Styrol/C. 220PF(K) 50WV | 24-11-14 |
| 7-C9 | EC307258 | Styrol/C. 330PF(K) 50WV | 24-11-14 |
| 7-C14 | EC305677 | Styrol/C. 200PF(K) 50WV | 24-11-14 |
| 7-C41 | EC321066 | Solid Aluminum/C. 0.15 μ F(K) 25WV | 24-19-3 |
| 7-C50,51 | EC324272 | Polypropylene/C. 0.0091 μ F(G) 100WV | 24-22-12 |
| 7-C52 | EC324274 | Polypropylene/C. 0.0075 μ F(G) 100WV | 24-22-12 |
| 7-C53 | EC324275 | Polypropylene/C. 0.0068 μ F(G) 100WV | 24-22-12 |
| 7-C57 | EC324402 | Styrol/C. 1000PF(J) 500WV | 24-11-17 |
| 7-C67,68 | EC324005 | Styrol/C. 680PF(K) 50WV | 24-11-14 |
| 7-2 | ZS356804 | Set Screw, Hexagon Socket 3 \times 4 (CUP/P.) | |
| 7-3 | ZS422076 | Screw, pan 3 \times 5 | |

8. BAR METER P.C BOARD (CE-5209) BLOCK

| Symbol No. | Parts No. | Description | Schematic No. |
|------------|-----------|-----------------------|---------------|
| 8-IND1 | EM315859 | Bar Meter FIP48CW16YS | 53-1-175 |
| 8-IC1,2 | EI315799 | IC HA12019 | 45-8-366 |

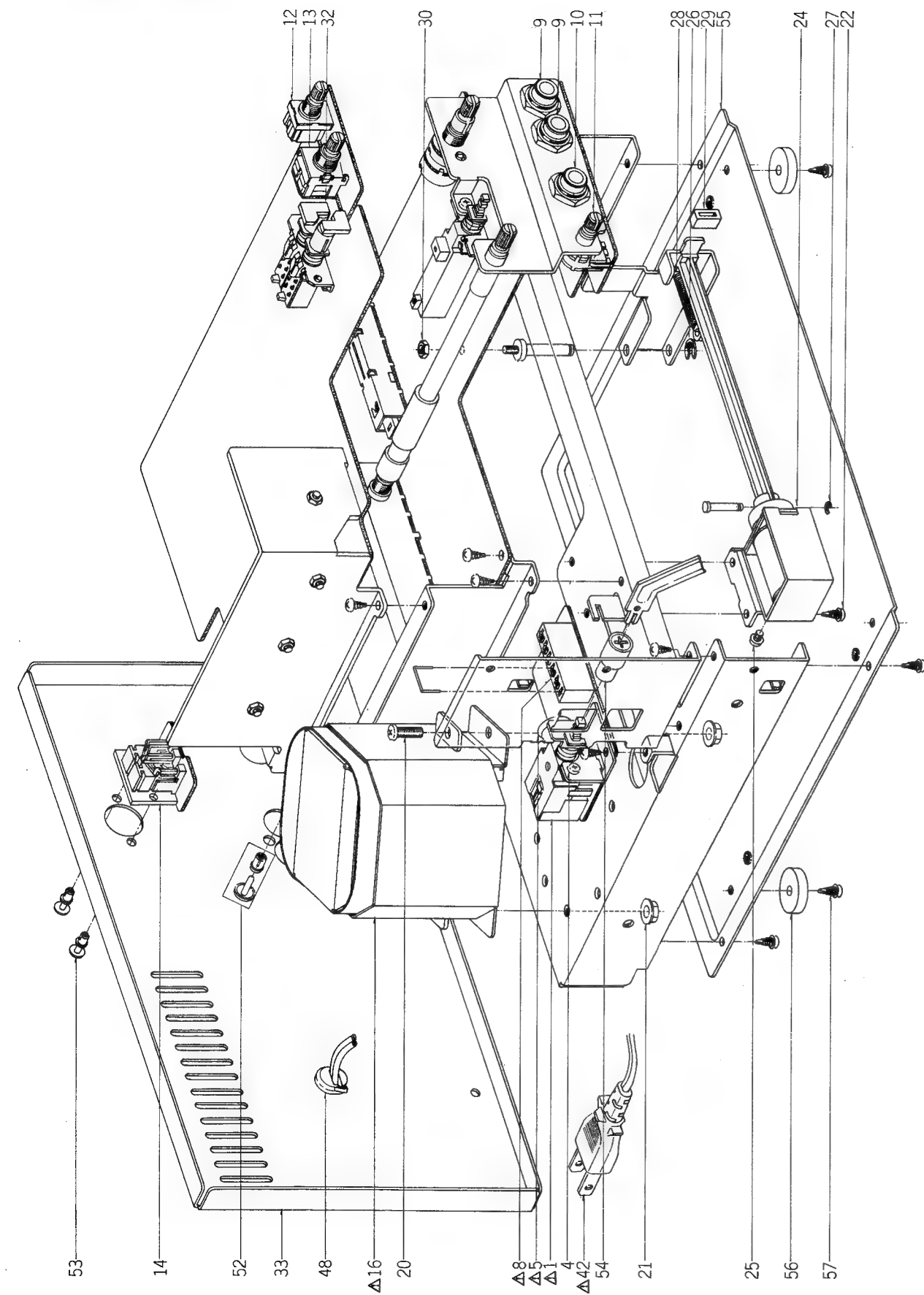
9. COUNTER P.C BOARD (UCF-6501) BLOCK

| Symbol No. | Parts No. | Description | Schematic No. |
|------------|-----------|---|---------------|
| 9-IC1 | EI323780 | IC TC5054P | 45-8-406 |
| 9-TR1to4 | ET639437 | Transistor 2SC945L(Q)(P) | 45-1-85 |
| 9-IND1 | ED324082 | LED, 4 Figures 7 Segments SL-1406-20 | 59-2-1 |

10. MECHA P.C BOARD (UCF-1563) BLOCK

| Symbol No. | Parts No. | Description | Schematic No. |
|------------|-----------|---------------------------|---------------|
| 10-L1,2 | EO669273 | Inductor FL5R-200 | 23-1-248 |
| 10-R1 | ER320337 | Cement/R. 5W 22 ohms(K) | 35-16-80 |
| 10-C3 | EC321068 | NP/C. 47 μ F(M) 6.3WV | 24-17-31 |

11. AMP CHASSIS BLOCK

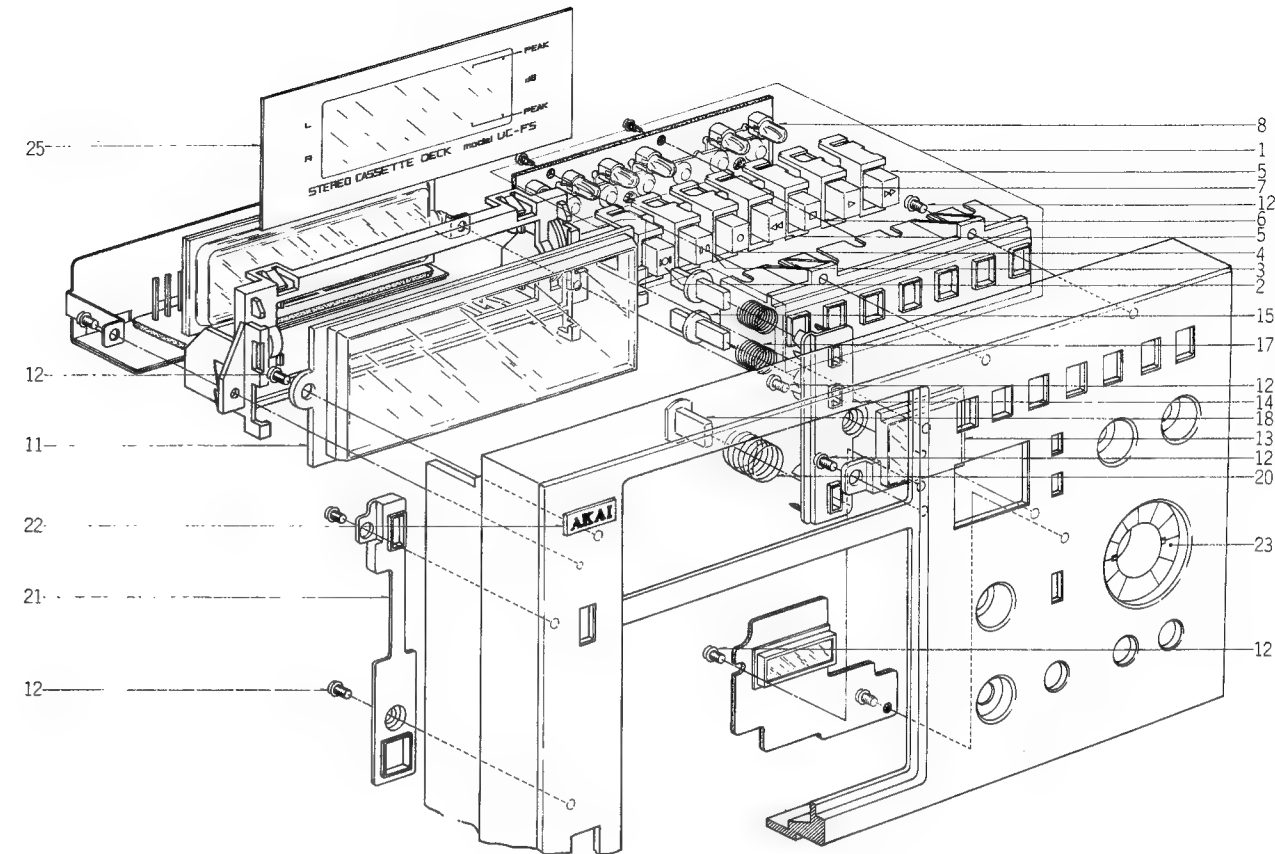


AMP CHASSIS BLOCK

| Ref. No. | Parts No. | Description | Schematic No. | Ref. No. | Parts No. | Description | Schematic No. |
|----------------------------------|-----------|---|---------------|-----------------------------|-----------|---|---------------|
| POWER SW. P.C BOARD BLOCK | | | | FINAL ASSEMBLY BLOCK | | | |
| 11-1 | ES665807 | △ Push SW. SDG5P-E 5A/80A 250V (U/T,CEE,UK,SAA) | 25-5-182 | 11-51x | ZS463353 | Tapping Screw, #2 BR 3x8 (Black) (CEE,UK,SAA) | |
| 11-2x | ES315159 | △ Push SW. SDG1P (JPN) | 25-5-330 | 11-52 | ZW263946 | Nylon Rivet 4x5 | 2-7-57 |
| 11-3x | ES665875 | △ Push SW. SDG1P-J TV-3 UL/CSA (CSA,AAL) | 25-5-199 | 11-53 | ZW231030 | Nylon Rivet (NRB) 3x4.5 (Black) | 2-7-54 |
| 11-4 | ZS422076 | Screw, pan 3x5 | | | | | |
| 11-5 | EC321302 | △ Ceramic/C. E 0.01μF(Z) 250VAC (U/T,JPN) | 24-5-90 | 11-54 | TC289484 | SW. Joint | CM-6015 |
| 11-6x | EC314688 | △ Ceramic/C. DE7150 FZ 0.01μF(P) 125WV(CSA,AAL) | 24-5-87 | 11-55 | SP323769 | Bottom Plate | UCF-5520 |
| 11-7x | EC327382 | △ MP/C. (Vert.) 0.0047μF(M) 250WV (CEE,UK,SAA) | 24-9-134 | 11-56 | SA324129 | Foot | UCF-5521 |
| 11-8 | MZ283140 | △ Voltage Changer 12M-60031 (U/T) | 40-2-13 | 11-57 | ZS490228 | Tapping Screw, #2 bind 3x8 | |
| JACK P.C BOARD BLOCK | | | | | | | |
| 11-9 | EJ321328 | Jack HLJ0345-01-010 | 31-2-110 | | | | |
| 11-10 | EJ316156 | Head Phone Jack HLJ0315-01-020 | 31-2-106 | | | | |
| 11-11 | EV324397 | Single-Axial 2-Throw/Vol. GN20R522-10kBx2 | 36-7-17 | | | | |
| SW. P.C BOARD BLOCK | | | | | | | |
| 11-12 | ES324007 | Rotary SW. SRU1023S | 25-6-186 | | | | |
| 11-13 | ES324008 | Rotary SW. SBU1024X01 | 25-6-187 | | | | |
| REMO. CON P.C BOARD BLOCK | | | | | | | |
| 11-14 | EJ324276 | DIN Socket 8P TCS4680-01-111 | 31-5-156 | | | | |
| 11-15x | ZS447840 | Tapping Screw, #2 BR 3x8 | | | | | |
| 11-16 | BT324069 | △ Power Trans. UCFT-1(U/T) | 38-4-768 | | | | |
| 11-17x | BT324070 | △ Power Trans. UCFT-2(JPN) | 38-4-769 | | | | |
| 11-18x | BT324071 | △ Power Trans. UCFT-3 (CEE,UK,SAA) | 38-4-770 | | | | |
| 11-19x | BT324072 | △ Power Trans. UCFT-4 (CSA,AAL) | 38-4-771 | | | | |
| 11-20 | ZS413234 | Screw, pan 4x12 | | | | | |
| 11-21 | ZW413267 | Flange Nut M4 | | | | | |
| 11-22 | ZS325495 | Tapping Screw, #2 BR 3x6 | | | | | |
| 11-23x | ER311503 | Cement/R. (Wire Wounded) 10W 20 ohms (K) | 35-16-89 | | | | |
| 11-24 | EP324395 | Plunger 1037TLTI | 44-1-132 | | | | |
| 11-25 | ZS324374 | Screw, pan 3x3.5 (Blue) | | | | | |
| 11-26 | ZW290283 | 'U' Ring 2.85M | 6-1-1 | | | | |
| 11-27 | ZW270088 | 'E' Ring 1.9M | 6-1-9 | | | | |
| 11-28 | ZG313044 | Coil Spring T1-5.0/0.55-22.4 | | | | | |
| 11-29 | MB668801 | Stopper Rubber TE (B) | TE-2039 | | | | |
| 11-30 | ZW516993 | Nut, #1 M3 | | | | | |
| 11-31x | ZS306486 | Tapping Screw, #2, BR 3x8 W/Washer | | | | | |
| 11-32 | MZ323757 | SW. Joint | UCF-5514 | | | | |
| 11-33 | SP323760 | Rear Panel (U/T) | UCF-5522 | | | | |
| 11-34x | SP323766 | Rear Panel (JPN) | UCF-5518 | | | | |
| 11-35x | SP323762 | Rear Panel (CSA) | UCF-5517 | | | | |
| 11-36x | SP323765 | Rear Panel (AAL) | UCF-5516 | | | | |
| 11-37x | SP323767 | Rear Panel (CEE,UK,SAA) | UCF-5519 | | | | |
| 11-38x | SP323761 | Rear Panel (U/T-BL) | UCF-5522 | | | | |
| 11-39x | SP323764 | Rear Panel (CSA-BL) | UCF-5517 | | | | |
| 11-40x | SP323768 | Rear Panel (CEE,UK,SAA-BL) | UCF-5519 | | | | |
| 11-41 | ZS447761 | Tapping Screw, #2 BR 3x6 (Black) | | | | | |
| 11-42 | EW306428 | △ AC Cord (U/T) | 26-3-64 | | | | |
| 11-43x | EW306427 | △ AC Cord (JPN) | 26-3-63 | | | | |
| 11-44x | EW305691 | △ AC Cord CUL (CSA,AAL) | 26-3-65 | | | | |
| 11-45x | EW315767 | △ AC Cord Set CEE 2 Cores (CEE) | 26-3-72 | | | | |
| 11-46x | EW322400 | △ AC Cord Set BASEC 2 Cores (UK) | 26-3-73 | | | | |
| 11-47x | EW322401 | △ AC Cord Set SAA 2 Cores (SAA) | 26-3-77 | | | | |
| 11-48 | EZ631945 | Strain Relief SR-4N-4 | 2-7-49 | | | | |
| 11-49x | EJ301513 | △ Inlet 2P (CEE,UK,SAA) | 31-1-200 | | | | |
| 11-50x | ES306430 | Slide SW. J-S4013 #01 (CEE,UK,SAA) | 25-3-142 | | | | |

When ordering parts, please quote Parts Number, Description and Model Number.

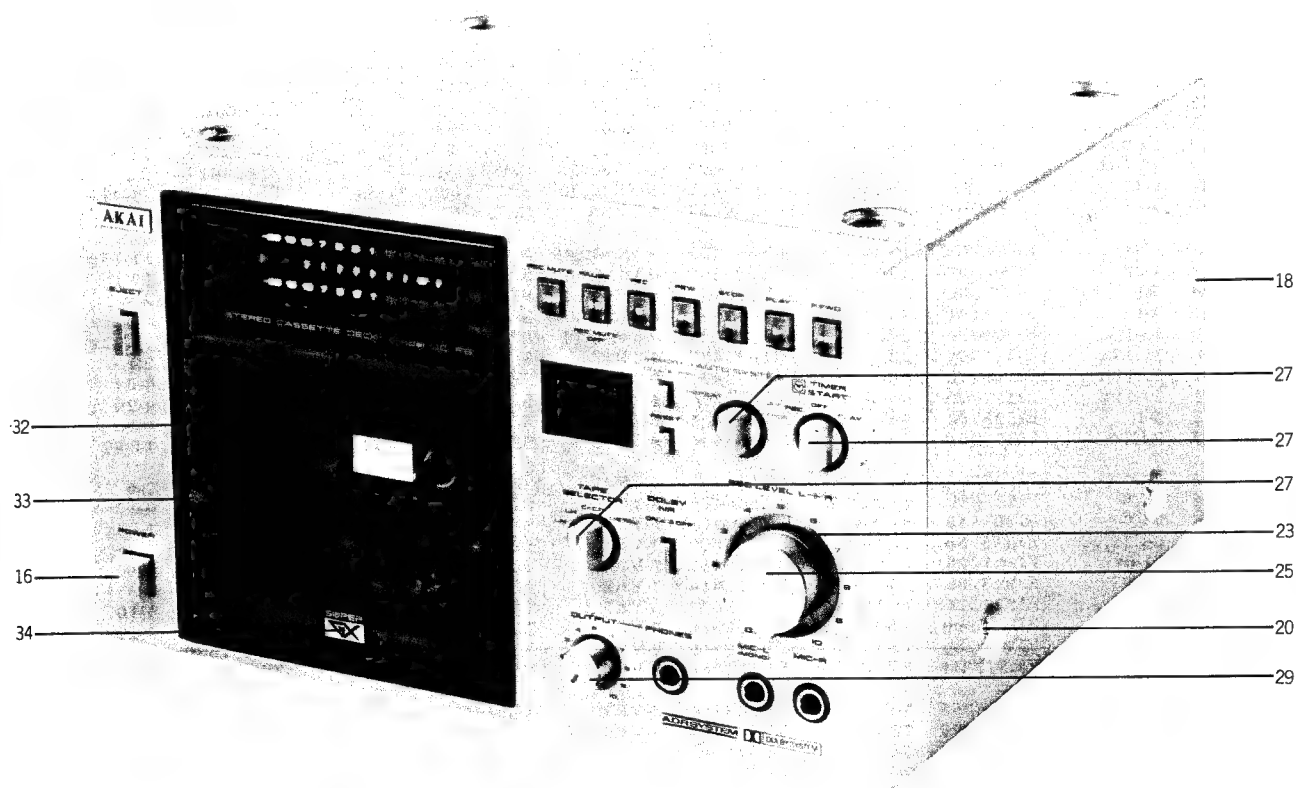
12. FRONT PANEL BLOCK



FRONT PANEL BLOCK

| Ref. No. | Parts No. | Description | Schematic No. |
|-------------------|-----------|-----------------------------|----------------|
| OPERATION BLOCK | | | |
| 12-1 | BK324288 | Operation BLK UC-F5 | 25-5-353 |
| 12-2 | SB324279 | Operation Button (REC MUTE) | 25-5-353 |
| 12-3 | SB324280 | Operation Button (PAUSE) | 25-5-353 |
| 12-4 | SB324282 | Operation Button (REC) | 25-5-353 |
| 12-5 | SB324283 | Operation Button (FF,RWD) | 25-5-353 |
| 12-6 | SB324284 | Operation Button (STOP) | 25-5-353 |
| 12-7 | SB324285 | Operation Button (PLAY) | 25-5-353 |
| 12-8 | EL324286 | Lamp 24V 500mA | 25-5-353 |
| FRONT PANEL BLOCK | | | |
| 12-9x | BD323613 | Front Panel BLK UC-F5 | |
| 12-10x | BD323614 | Front Panel BLK UC-F5-BL | |
| 12-11 | SZ324032 | Meter Window | UCF-6508 |
| 12-12 | ZS379405 | Screw, bind 3x6 | |
| 12-13 | SZ324031 | Counter Filter | UCF-6507, 6527 |
| 12-14 | SE323777 | SW. Escutcheon | UCF-6504 |
| 12-15 | SB323778 | Button (C) | UCF-6505 |
| 12-16x | SB323779 | Button (C-BL) | UCF-6505 |
| 12-17 | ZG494403 | Return Spring | CG-1204 |
| 12-18 | SB323309 | Button (B) | UCA-5008 |
| 12-19x | SB323310 | Button (B-BL) | UCA-5008 |
| 12-20 | ZG323312 | Spring (B) | UCA-5010 |
| 12-21 | SE324030 | Escutcheon | UCF-6506 |
| 12-22 | SM323339 | Name Plate | A0565 |
| 12-23 | SZ324122 | Decoration Ring | UCF-6512, 6513 |
| 12-24x | SZ324124 | Decoration Ring (BL) | UCF-6512, 6513 |
| 12-25 | SZ324035 | Meter Filter | UCF-6510, 6511 |

13. FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

| Ref. No. | Parts No. | Description | Schematic No. | Ref. No. | Parts No. | Description | Schematic No. |
|----------|-----------|--------------------------|---------------|----------|-----------|-----------------------------|----------------|
| 13-1x | ZS447840 | Tapping Screw, #2 BR 3x8 | | 13-18 | BC324052 | Upper Cover | UCF-6524 |
| 13-2x | ZS323728 | Screw, bind 3x5 | | 13-19x | BC324053 | Upper Cover (BL) | UCF-6524 |
| 13-3x | ZS422076 | Screw, pan 3x5 | | 13-20 | ZS315878 | S-Tight Screw, bind 4x8 | |
| 13-4x | ZS558101 | Screw, pan 3x6 W/Washer | | 13-21x | ZS310588 | S-Tight Screw, bind 4x8 | |
| 13-5x | ZS325495 | Tapping Screw, #2 BR 3x6 | | | | (Black) | |
| 13-6x | EF593706 | △ Fuse (SEMKO T) 500MAT | 39-1-53 | 13-22x | ZS463353 | Tapping Screw, #2 BR 3x8 | |
| | | (CEE,UK,SAA) | | | | (Black) | |
| 13-7x | EF306949 | △ Fuse 1.25A 250V | 39-1-64 | 13-23 | SK323704 | Double Knob (Lower-A) | UCF-6520 |
| | | (U/T,JPN) | | | | UC-F5 | |
| 13-8x | EF306950 | △ Fuse 2A 250V (U/T,JPN) | 39-1-64 | 13-24x | SK324047 | Double Knob (Lower-A-BL) | UCF-6520 |
| 13-9x | EF309389 | △ Fuse 400mA 250V | 39-1-64 | | | Part UC-F5-BL | |
| | | (U/T,JPN) | | 13-25 | SK324210 | Double Knob (Upper) Part | UCF-6521 |
| 13-10x | EF309392 | △ Fuse 1.25A 125V | 39-1-65 | | | UC-F5 | |
| | | (CSA,AAL) | | 13-26x | SK324211 | Double Knob (Upper-BL) Part | UCF-6521 |
| 13-11x | EF306954 | △ Fuse 2A 125V (CSA,AAL) | 39-1-65 | | | UC-F5-BL | |
| 13-12x | EF308848 | △ Fuse 400mA 125V | 39-1-65 | 13-27 | SK323770 | Knob (A) Part UC-F5 | UCF-6522 |
| | | (CSA,AAL) | | 13-28x | SK324290 | Knob (A-BL) Part UC-F5-BL | UCF-6522 |
| 13-13x | EF623103 | △ Fuse (SEMKO T) 1AT | 39-1-53 | 13-29 | SK324291 | Knob (B) Part UC-F5 | UCF-6523 |
| | | (CEE,UK,SAA) | | 13-30x | SK324293 | Knob (B-BL) Part UC-F5-BL | UCF-6523 |
| 13-14x | EF601301 | △ Fuse (SEMKO T) 2AT | 39-1-53 | 13-31x | SZ324041 | Lid Panel | UCF-6516, 6517 |
| | | (CEE,UK,SAA) | | 13-32 | SZ324042 | Lid Window | UCF-6518 |
| 13-15x | EF300590 | △ Fuse (EAWK) 400MAT | 39-1-60 | 13-33 | ZS324043 | Decoration Screw | UCF-6519 |
| | | (CEE,UK,SAA) | | 13-34 | SM315737 | Super GX Name Plate | CF-6236 |
| 13-16 | SB324039 | Button (B) | UCF-6515 | 13-35x | ZW305013 | Pop Rivet D3.2 | 7-6-9 |
| 13-17x | SB324040 | Button (B-BL) | UCF-6515 | | | | |

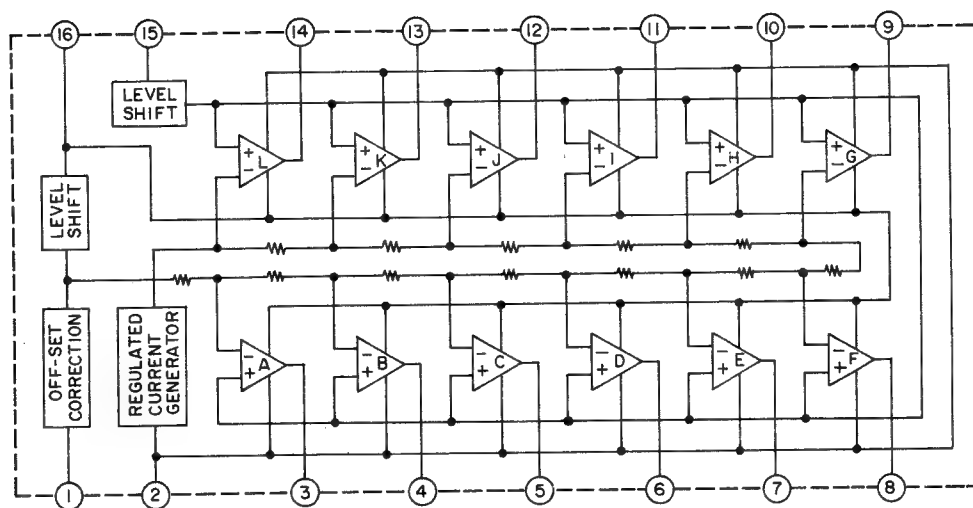
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| Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. |
|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|
| BA323658 | 7-1 | ED560913 | 7-D2 | ET313514 | 6-TR1 | SK324047 | 13-24x | ZS419782 | 2-11 |
| BA324093 | 6-1 | ED560913 | 7-D5to10 | ET315958 | 6-TR28,29 | SK324210 | 13-25 | ZS421806 | 6-4 |
| BA324094 | 6-2 | ED624903 | 6-D74 | ET327714 | 6-TR40 | SK324211 | 13-26x | ZS422076 | 4-5 |
| BA324095 | 6-3 | EF300590 | 13-15x | ET554657 | 6-TR7 | SK324290 | 13-28x | ZS422076 | 5-3 |
| BC324052 | 13-18 | EF306949 | 13-7x | ET554657 | 6-TR25 | SK324291 | 13-29 | ZS422076 | 7-3 |
| BC324053 | 13-19x | EF306950 | 13-8x | ET554657 | 6-TR60 | SK324293 | 13-30x | ZS422076 | 11-4 |
| BD323613 | 12-9x | EF306954 | 13-11x | ET603257 | 7-TR2 | SM315737 | 13-34 | ZS422076 | 13-3x |
| BD323614 | 12-10x | EF308848 | 13-12x | ET639437 | 6-TR8to23 | SM323339 | 12-22 | ZS430413 | 3-2 |
| BF324381 | 4-48 | EF309389 | 13-9x | ET639437 | 6-TR32,33 | SP323760 | 11-33 | ZS447761 | 11-41 |
| BH323630 | 2-1x | EF309392 | 13-10x | ET639437 | 6-TR38 | SP323761 | 11-38x | ZS447840 | 4-28 |
| BK324288 | 12-1 | EF593706 | 13-6x | ET639437 | 6-TR44to49 | SP323762 | 11-35x | ZS447840 | 11-15x |
| BL326857 | 4-38 | EF601301 | 13-14x | ET639437 | 6-TR55to59 | SP323764 | 11-39x | ZS447840 | 13-1x |
| BM323629 | 3-1 | EF623103 | 13-13x | ET639437 | 6-TR61,62 | SP323765 | 11-36x | ZS462947 | 2-9 |
| BM324427 | 4-1 | EI306141 | 7-IC2 | ET639437 | 6-TR3to8 | SP323766 | 11-34x | ZS463353 | 11-51x |
| BT324069 | 11-16 | EI308936 | 6-IC1 | ET639437 | 7-TR10,11 | SP323767 | 11-37x | ZS463353 | 13-22x |
| BT324070 | 11-17x | EI315799 | 8-IC1,2 | ET639437 | 7-TR15 | SP323768 | 11-40x | ZS464692 | 2-13 |
| BT324071 | 11-18x | EI316170 | 6-IC7 | ET639437 | 9-TR1to4 | SP323769 | 11-55 | ZS464703 | 4-37 |
| BT324072 | 11-19x | EI322490 | 6-IC4to6 | ET666404 | 6-TR24 | SZ324031 | 12-13 | ZS477876 | 4-24 |
| BZ323633 | 5-1 | EI323780 | 9-IC1 | ET666404 | 6-TR26,27 | SZ324032 | 12-11 | ZS479474 | 4-9 |
| EC305677 | 7-C14 | EI324061 | 4-11 | ET666404 | 6-TR30 | SZ324035 | 12-25 | ZS490228 | 11-57 |
| EC305679 | 7-C4 | EI605013 | 7-IC1 | ET666404 | 6-TR42 | SZ324041 | 13-31x | ZS524812 | 2-6 |
| EC306986 | 7-C8 | EI633982 | 6-IC2,3 | ET666415 | 6-TR35 | SZ324042 | 13-32 | ZS537085 | 4-13 |
| EC307258 | 7-C9 | EJ301513 | 11-49x | ET666415 | 6-TR52 | SZ324122 | 12-23 | ZS558101 | 13-4x |
| EC308940 | 6-C25,26 | EJ316156 | 11-10 | EV306737 | 7-VR2 | SZ324124 | 12-24x | ZS590804 | 2-8 |
| EC314688 | 11-6x | EJ321328 | 11-9 | EV315412 | 7-VR3 | TC289484 | 11-54 | ZS592378 | 3-14 |
| EC315964 | 6-C1 | EJ323788 | 7-J1 | EV315414 | 7-VR8 | TC309145 | 4-8 | ZS608095 | 4-35 |
| EC315966 | 6-C6 | EJ324276 | 11-14 | EV321682 | 6-VR2 | TC309206 | 5-8 | ZS608185 | 5-10 |
| EC315968 | 6-C8 | EL317599 | 4-34 | EV322366 | 7-VR5 | TC317433 | 3-16 | ZS609074 | 4-12x |
| EC316184 | 6-C12 | EL324286 | 12-8 | EV322416 | 7-VR4 | TC317454 | 5-7 | ZW231030 | 11-53 |
| EC316230 | 6-C9 | EM315859 | 8-IND1 | EV322416 | 7-VR6,7 | TC317455 | 5-11 | ZW263946 | 11-52 |
| EC321066 | 7-C41 | EO315758 | 7-FL3 | EV324366 | 7-VR1 | TC323621 | 4-10 | ZW270088 | 3-3 |
| EC321068 | 10-C3 | EO321295 | 7-L2 | EV324396 | 7-VR9 | TC323627 | 3-22 | ZW270088 | 4-19 |
| EC321302 | 11-5 | EO321336 | 7-L1 | EV324397 | 11-11 | TC323725 | 2-16 | ZW270088 | 5-14 |
| EC324005 | 7-C67,68 | EO323789 | 7-T1 | EW305691 | 11-44x | TC324289 | 4-40 | ZW270088 | 11-27 |
| EC324076 | 6-C52,53 | EO323790 | 7-FL4 | EW306427 | 11-43x | TC324298 | 5-4 | ZW270101 | 4-22 |
| EC324272 | 7-C50,51 | EO669273 | 10-L1,2 | EW306428 | 11-42 | TC324401 | 4-47 | ZW273756 | 6-5 |
| EC324274 | 7-C52 | EP308973 | 7-RL1 | EW315767 | 11-45x | ZG289236 | 2-2 | ZW290283 | 3-15 |
| EC324275 | 7-C53 | EP313497 | 3-13 | EW322400 | 11-46x | ZG309225 | 3-5 | ZW290283 | 4-21 |
| EC324402 | 7-C57 | EP324062 | 4-23 | EW322401 | 11-47x | ZG309226 | 3-7 | ZW290283 | 11-26 |
| EC327382 | 11-7x | EP324278 | 4-17 | EZ631945 | 11-48 | ZG312964 | 4-46 | ZW305013 | 13-35x |
| ED306109 | 6-D2 | EP324395 | 11-24 | HE321585 | 2-12 | ZG312999 | 5-18 | ZW309295 | 4-49 |
| ED306109 | 6-D7 | ER301441 | 7-R30 | HP319079 | 2-5 | ZG313001 | 3-23 | ZW321437 | 4-14 |
| ED306109 | 6-D41 | ER309119 | 7-FL2 | HZ309128 | 2-3 | ZG313044 | 11-28 | ZW322525 | 4-43 |
| ED306109 | 6-D59 | ER309120 | 7-FL1 | MB282104 | 3-6 | ZG313165 | 5-9 | ZW322525 | 5-15 |
| ED306109 | 6-D62 | ER311503 | 11-23x | MB282778 | 4-2 | ZG322048 | 3-11 | ZW322912 | 3-19 |
| ED308952 | 6-D3 | ER312487 | 6-R1 | MB282778 | 5-2 | ZG323312 | 12-20 | ZW323734 | 4-44 |
| ED308952 | 6-D21to30 | ER319177 | 6-R6 | MB323681 | 4-50 | ZG323699 | 4-31 | ZW356657 | 4-25 |
| ED308952 | 6-D57 | ER320337 | 10-R1 | MB323686 | 4-16 | ZG323702 | 4-45 | ZW357164 | 5-13 |
| ED308952 | 6-D68 | ER324081 | 6-R85 | MB668801 | 11-29 | ZG323714 | 4-39 | ZW381644 | 3-18 |
| ED308952 | 7-D1 | ER327441 | 7-R88,89 | MH323720 | 5-5 | ZG323715 | 2-15 | ZW413267 | 11-21 |
| ED308952 | 7-D3,4 | ER409814 | 7-R98 | MI309414 | 3-12 | ZG323736 | 3-17 | ZW432753 | 3-10 |
| ED309069 | 6-D5 | ES306430 | 11-50x | ML309229 | 3-8 | ZG324400 | 4-42 | ZW516993 | 11-30 |
| ED309069 | 6-D31 | ES312050 | 7-SW1 | MR323683 | 4-15 | ZG365433 | 3-4 | ZW563218 | 6-6 |
| ED309357 | 6-D1 | ES315159 | 11-2x | MR323722 | 5-12 | ZG370350 | 4-26 | ZW589893 | 5-17x |
| ED309357 | 6-D4 | ES323786 | 7-SW2 | MS309141 | 4-6 | ZG465636 | 2-10 | ZW590207 | 4-7 |
| ED313513 | 6-SCR1 | ES324007 | 11-12 | MT305793 | 3-21 | ZG469315 | 3-9 | ZW590207 | 5-6 |
| ED313623 | 6-D8 | ES324008 | 11-13 | MT312122 | 3-20 | ZG494403 | 12-17 | ZW591265 | 2-4 |
| ED315960 | 6-D6 | ES324009 | 6-SW1-2 | MV269965 | 4-29 | ZG595506 | 3-25 | ZW649991 | 5-16x |
| ED316143 | 6-D18 | ES324063 | 4-36 | MV309146 | 4-30 | ZS267254 | 2-17 | | |
| ED316143 | 6-D42 | ES324271 | 7-SW3 | MZ283140 | 11-8 | ZS302318 | 4-4 | | |
| ED316143 | 6-D72 | ES665807 | 11-1 | MZ323757 | 11-32 | ZS306486 | 11-31x | | |
| ED317594 | 6-D15 | ES665875 | 11-3x | SA324129 | 11-56 | ZS310588 | 13-21x | | |
| ED317594 | 6-D55 | ET301464 | 7-TR9 | SB323309 | 12-18 | ZS315878 | 13-20 | | |
| ED319176 | 6-D32 | ET305463 | 6-TR3 | SB323310 | 12-19x | ZS318208 | 4-41 | | |
| ED319176 | 6-D71 | ET307349 | 6-TR31 | SB323696 | 4-32 | ZS321338 | 4-3 | | |
| ED324013 | 6-D9 | ET307349 | 7-TR14 | SB323697 | 4-33x | ZS323728 | 4-20 | | |
| ED324082 | 9-IND1 | ET308937 | 6-TR2 | SB323778 | 12-15 | ZS323728 | 13-2x | | |
| ED326139 | 6-D73 | ET308937 | 6-TR34 | SB323779 | 12-16x | ZS324043 | 13-33 | | |
| ED560913 | 6-D10to14 | ET308937 | 6-TR36 | SB324039 | 13-16 | ZS324374 | 4-18 | | |
| ED560913 | 6-D16,17 | ET308937 | 6-TR39 | SB324040 | 13-17x | ZS324374 | 11-25 | | |
| ED560913 | 6-D19,20 | ET308937 | 6-TR41 | SB324279 | 12-2 | ZS325495 | 4-27 | | |
| ED560913 | 6-D33to40 | ET308937 | 6-TR51 | SB324280 | 12-3 | ZS325495 | 11-22 | | |
| ED560913 | 6-D43to46 | ET308937 | 6-TR53 | SB324282 | 12-4 | ZS325495 | 13-5x | | |
| ED560913 | 6-D48to54 | ET308977 | 7-TR12,13 | SB324283 | 12-5 | ZS356804 | 2-7 | | |
| ED560913 | 6-D56 | ET309353 | 6-TR37 | SB324284 | 12-6 | ZS356804 | 7-2 | | |
| ED560913 | 6-D58 | ET309353 | 6-TR50 | SB324285 | 12-7 | ZS379350 | 6-7 | | |
| ED560913 | 6-D60,61 | ET309353 | 6-TR54 | SE323777 | 12-14 | ZS379405 | 12-12 | | |
| ED560913 | 6-D63to67 | ET311832 | 7-TR1 | SE324030 | 12-21 | ZS413234 | 11-20 | | |
| ED560913 | 6-D69,70 | ET312497 | 6-TR4to6 | SK323704 | 13-23 | ZS417161 | 2-14 | | |
| ED560913 | 6-D75,76 | ET312497 | 6-TR43 | SK323770 | 13-27 | ZS417216 | 3-24 | | |

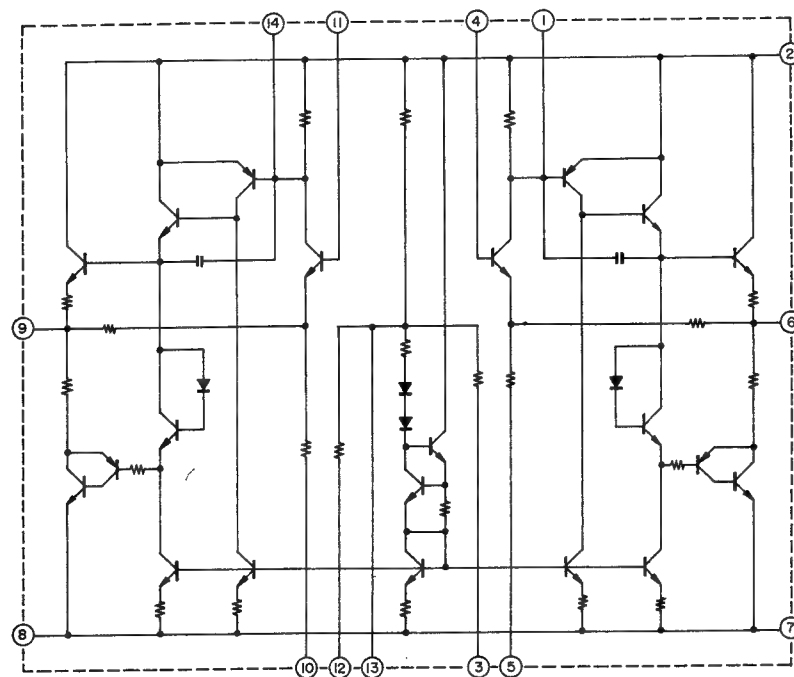
SCHEMATIC DIAGRAM

1. SCHEMATIC DIAGRAM OF ICs
2. UC-F5 NO. 2-1 1600630A SCHEMATIC DIAGRAM
3. UC-F5 AMP NO. 2-2 1600631A SCHEMATIC DIAGRAM

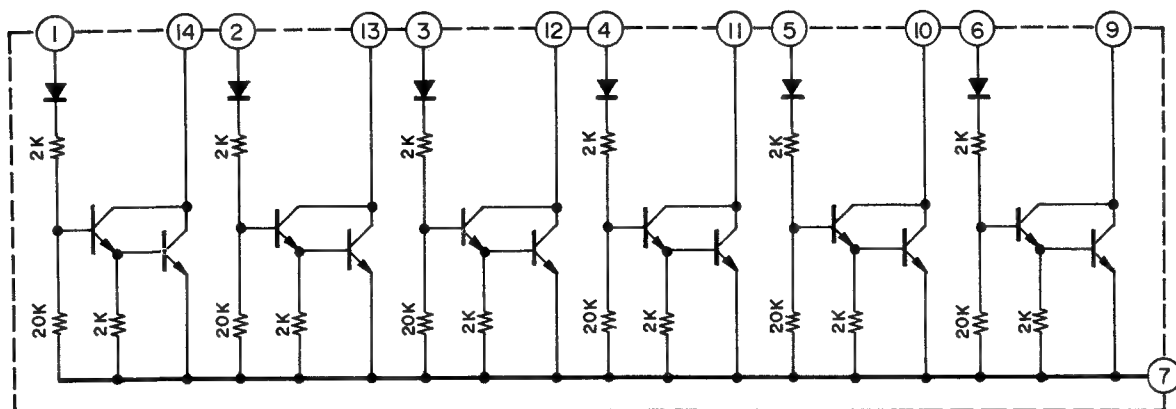
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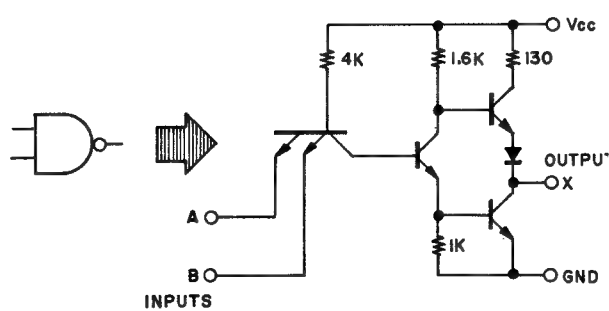
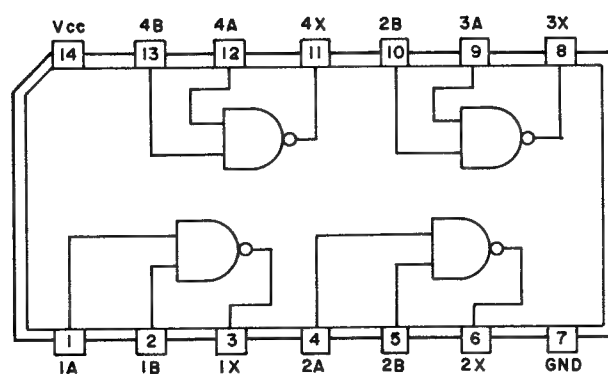
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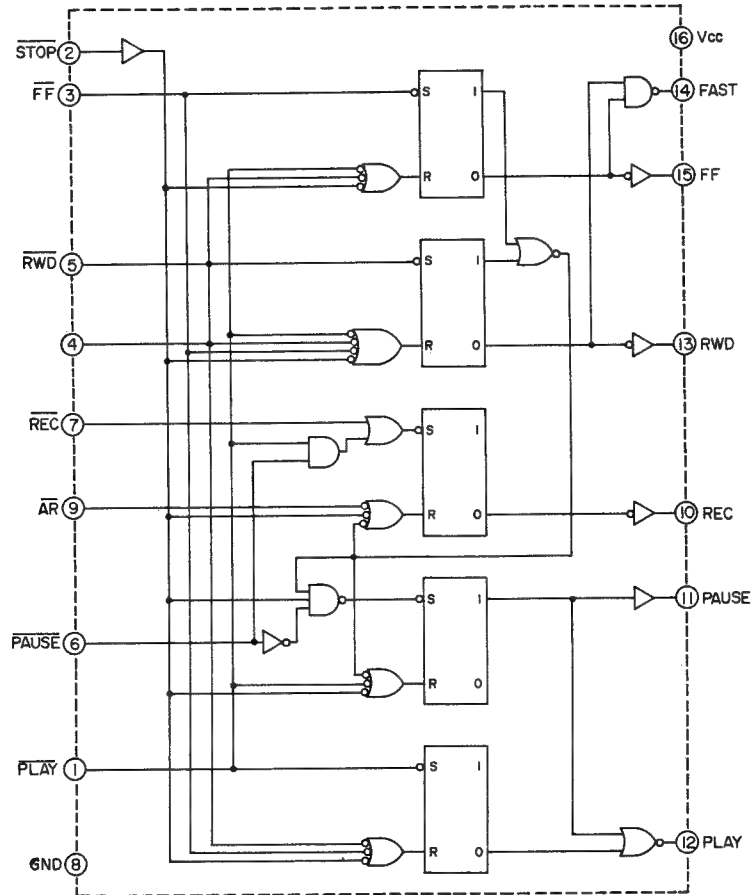
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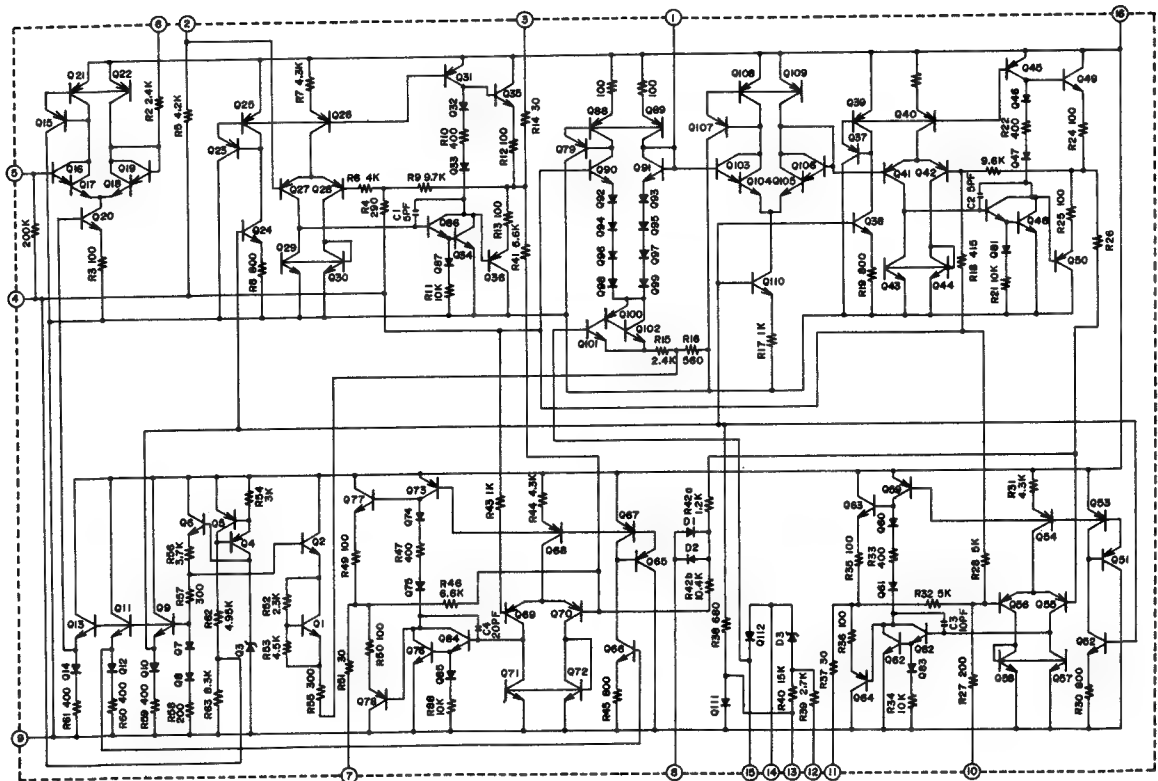
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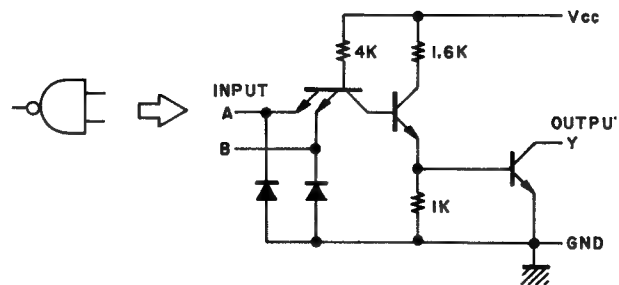
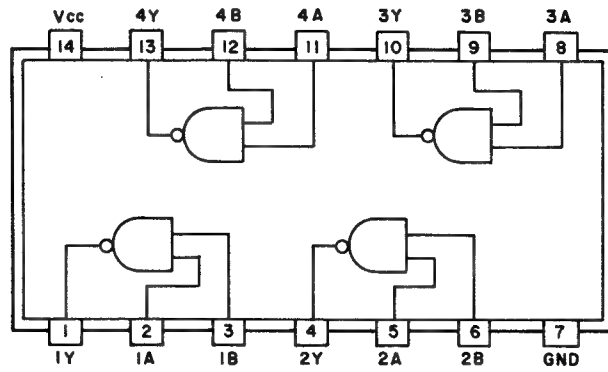
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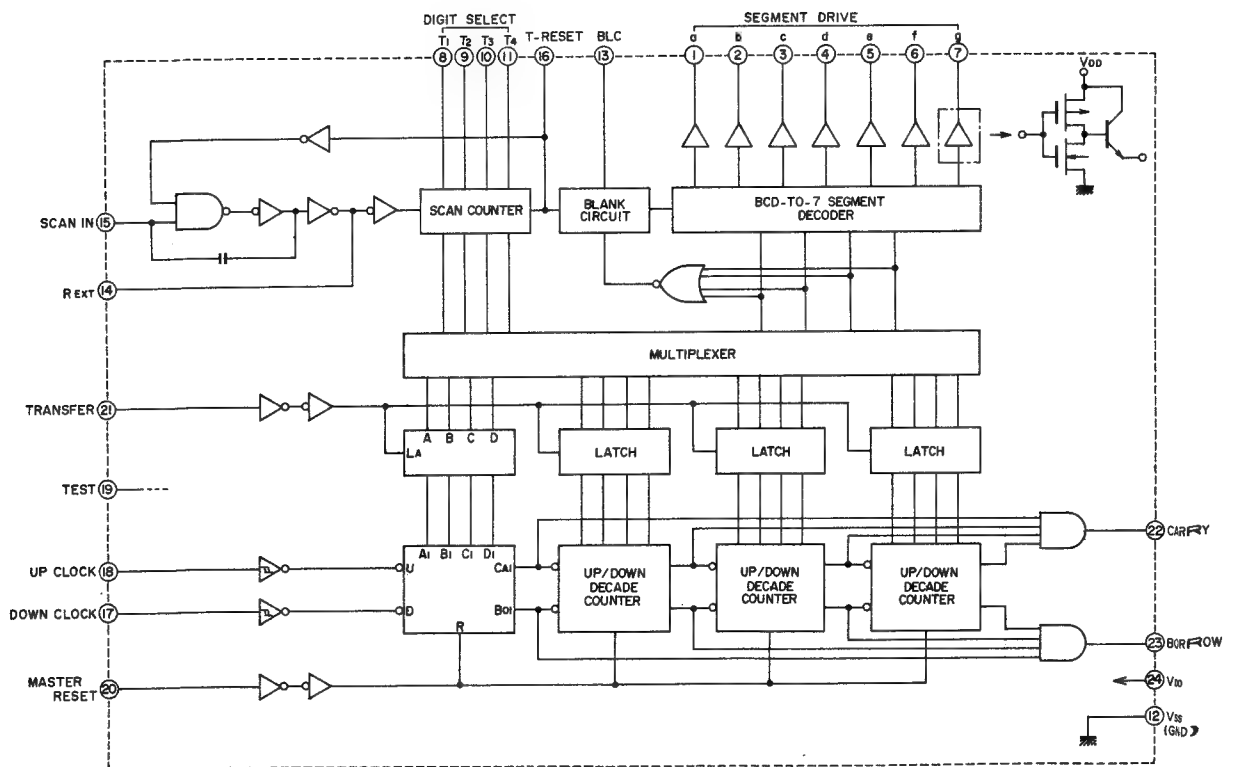
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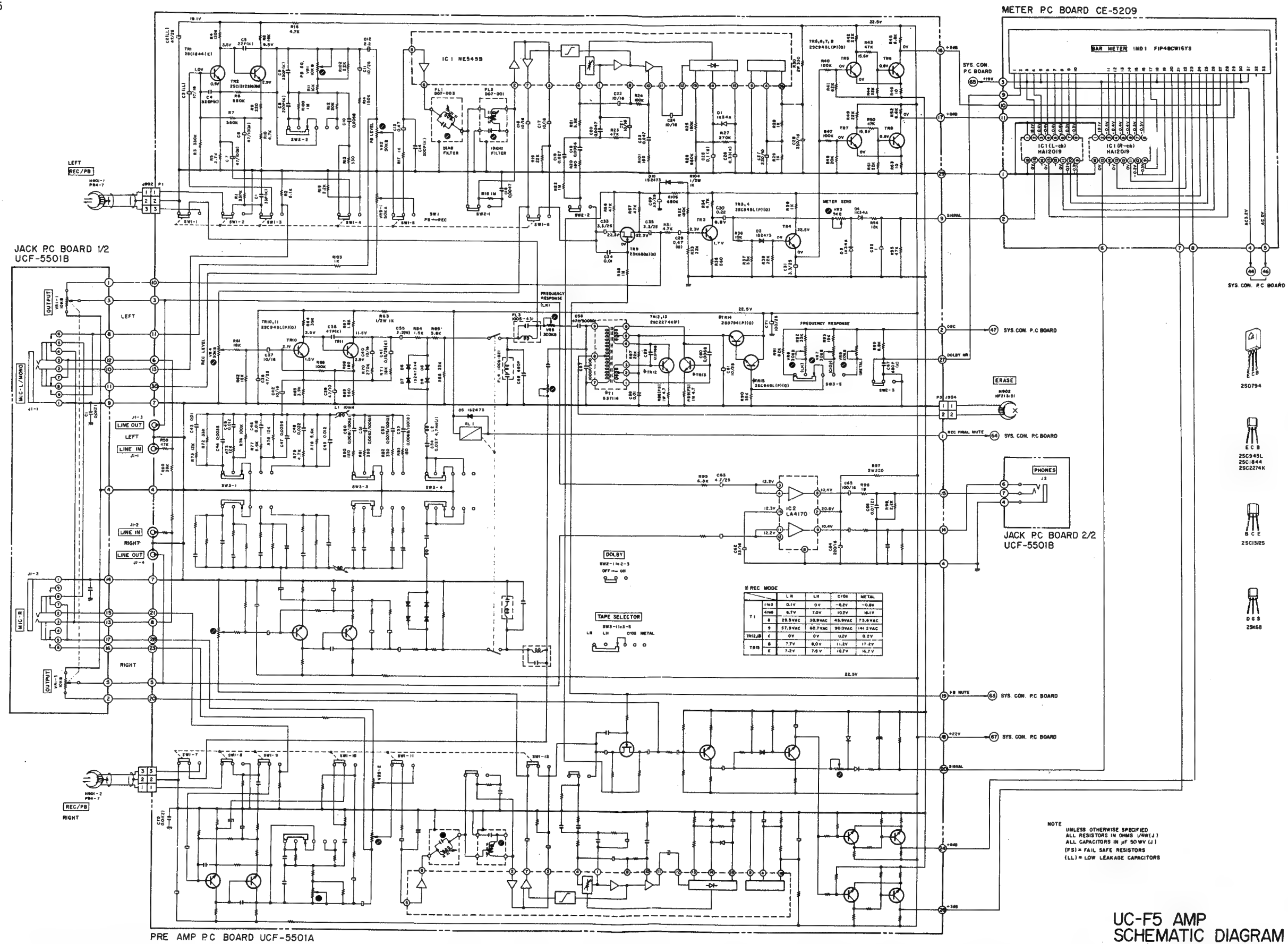
SN7401N



TC5054P

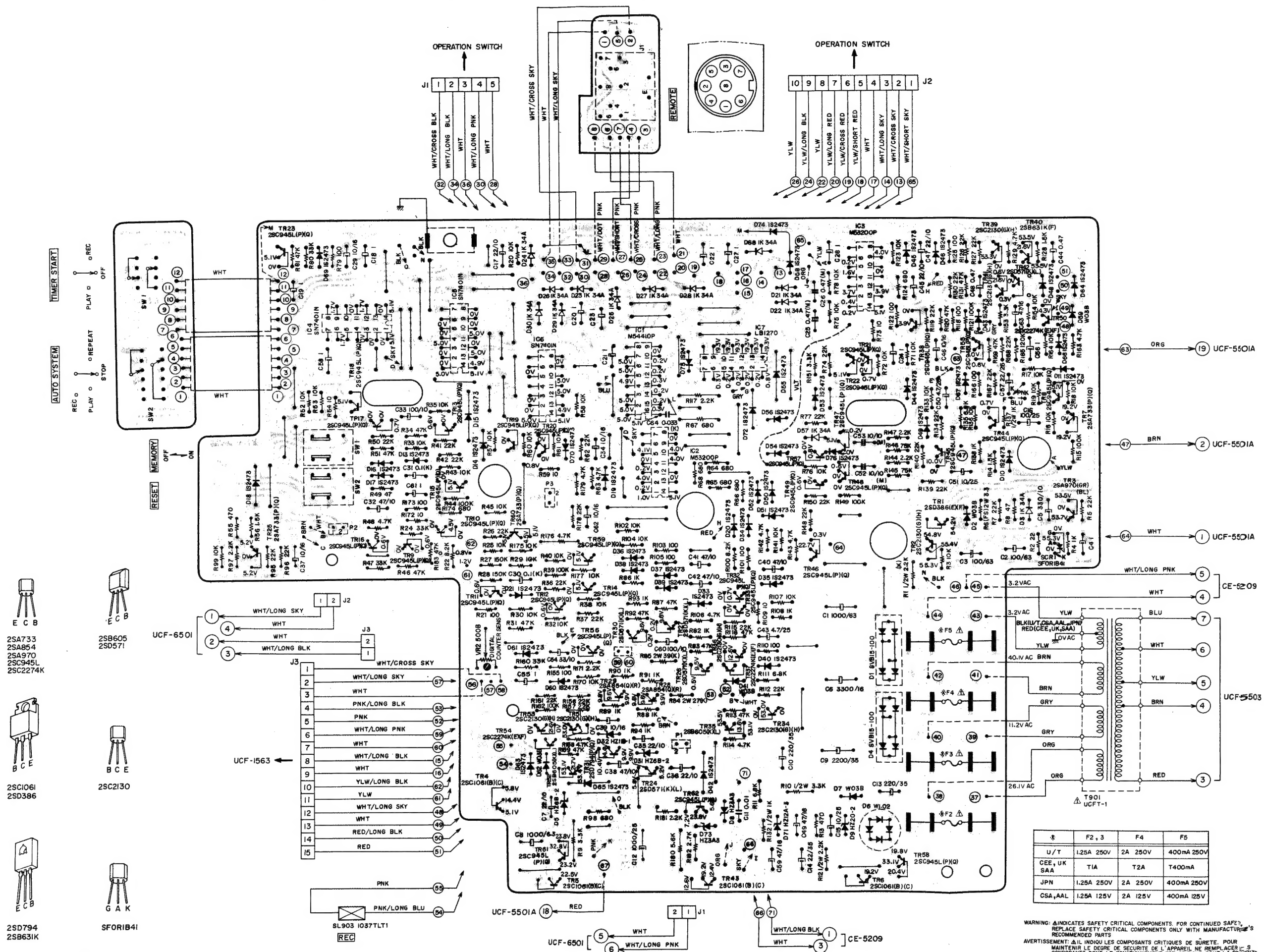


UC-F5

UC-F5 AMP
SCHEMATIC DIAGRAM
NO.2-2 1600631A

Sys. Con P.C Board UCF-5502A (3ED), Switch P.C Board UCF-5502B and Remote Control P.C Board UCF-5502C

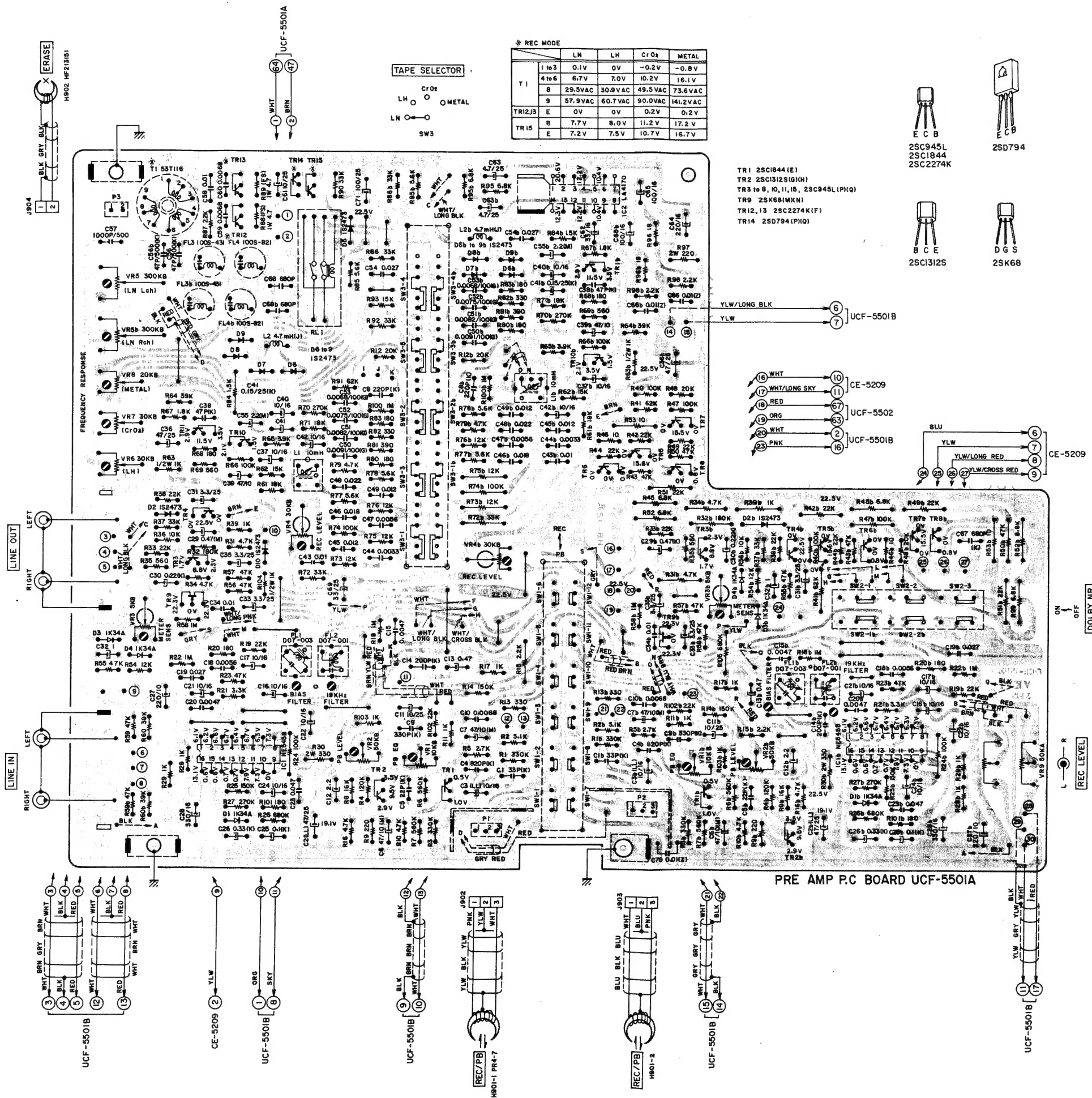
Sys. Con P.C Board UCF-5502A (3ED), Switch P.C Board UCF-5502B and Remote Control P.C Board UCF-5502C



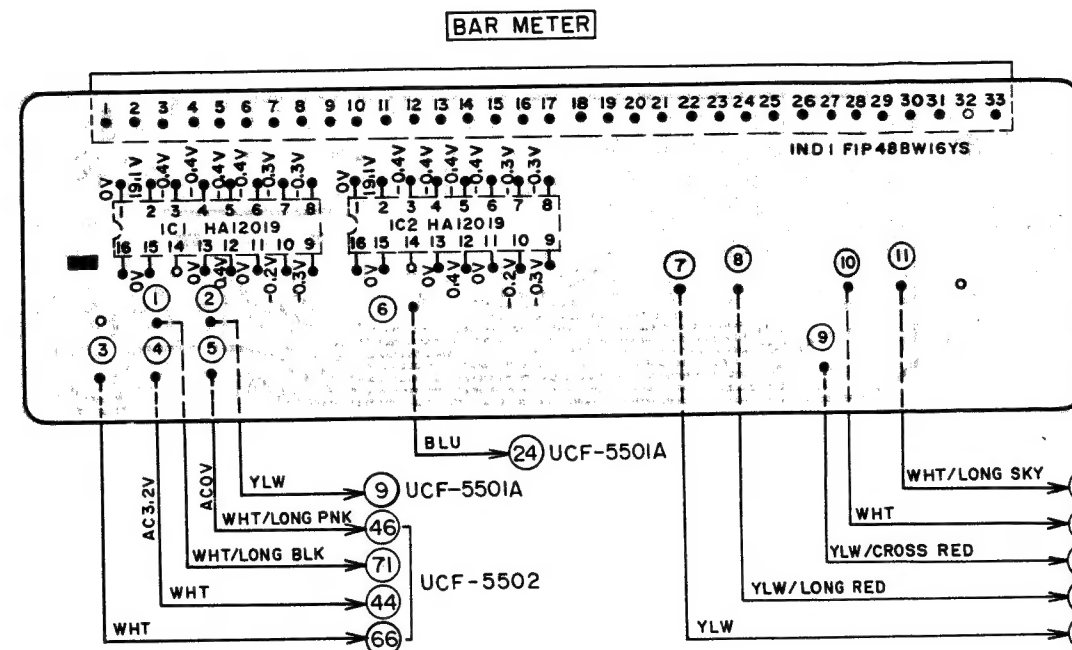
WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: Δ INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR
MAINTENIR LE DEGRÉ DE SÛRETÉ DE L'APPAREIL, NE REMPLACER LES
COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SÛRETÉ
QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

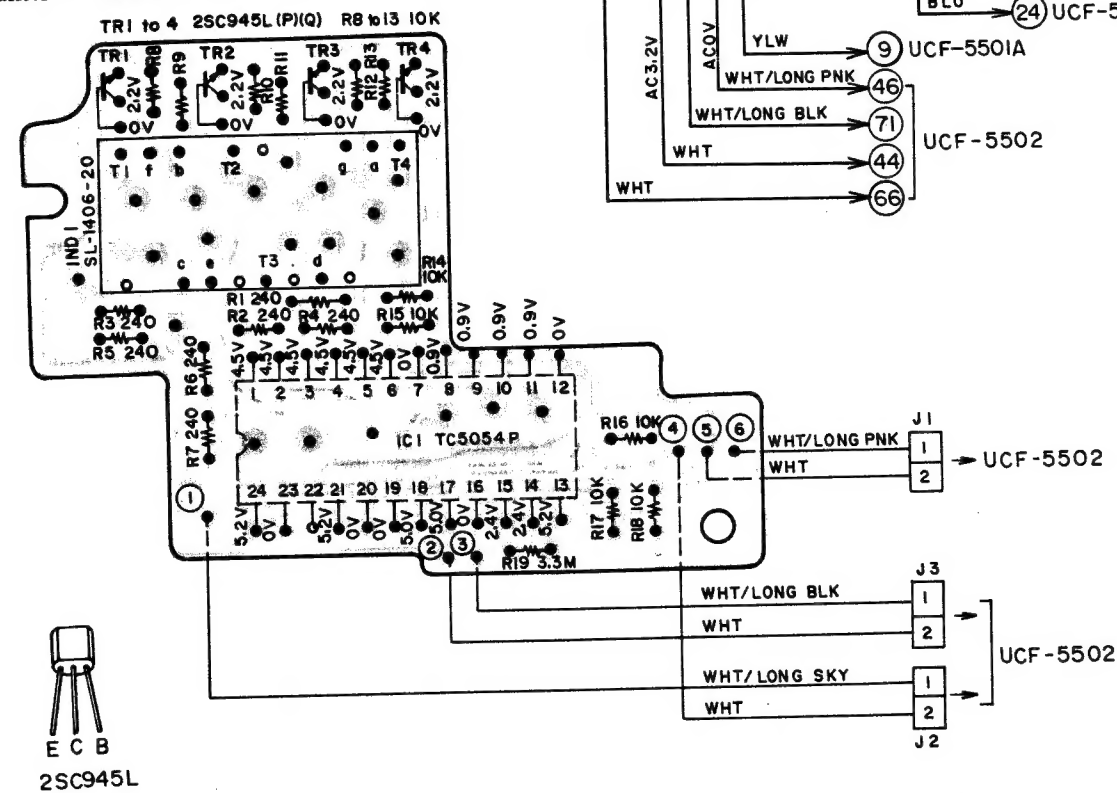
Pre Amp P.C Board UCF-5501A (2ED)



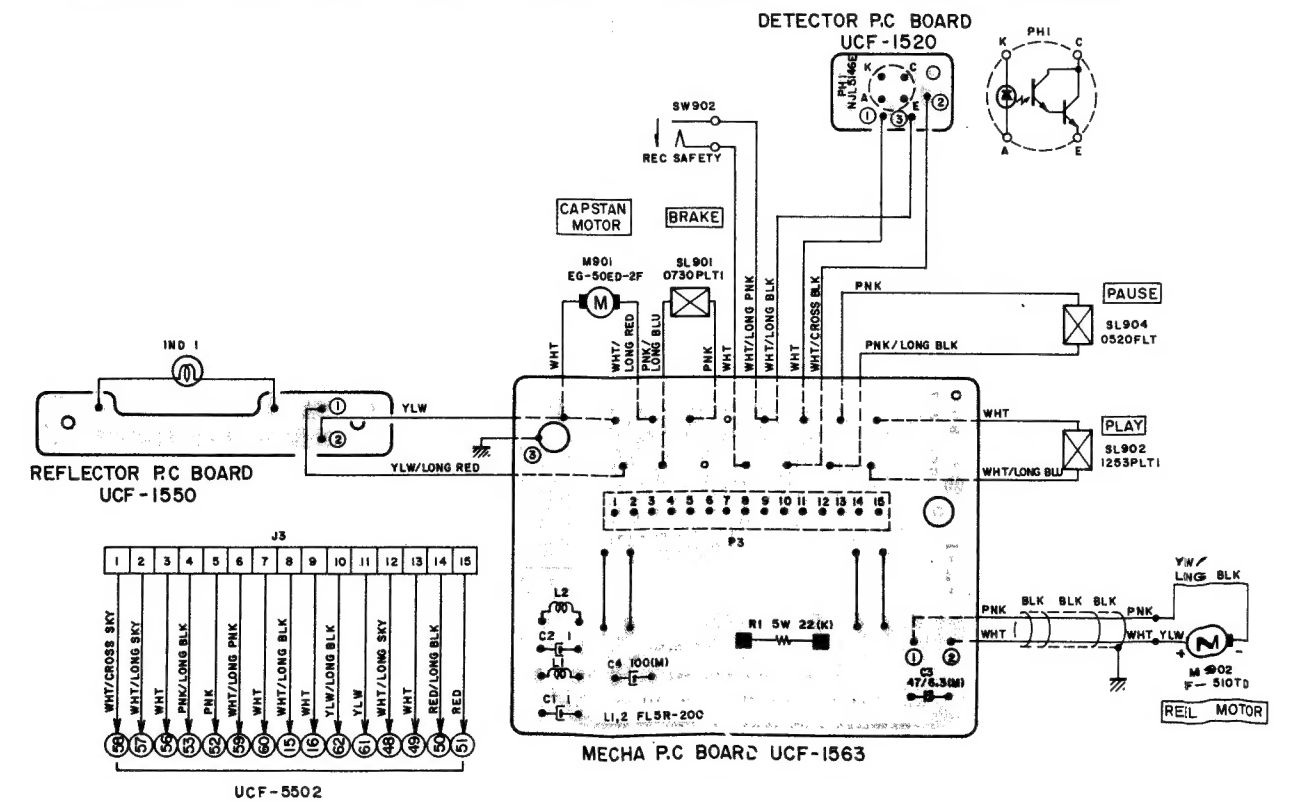
Meter P.C Board CE-5209



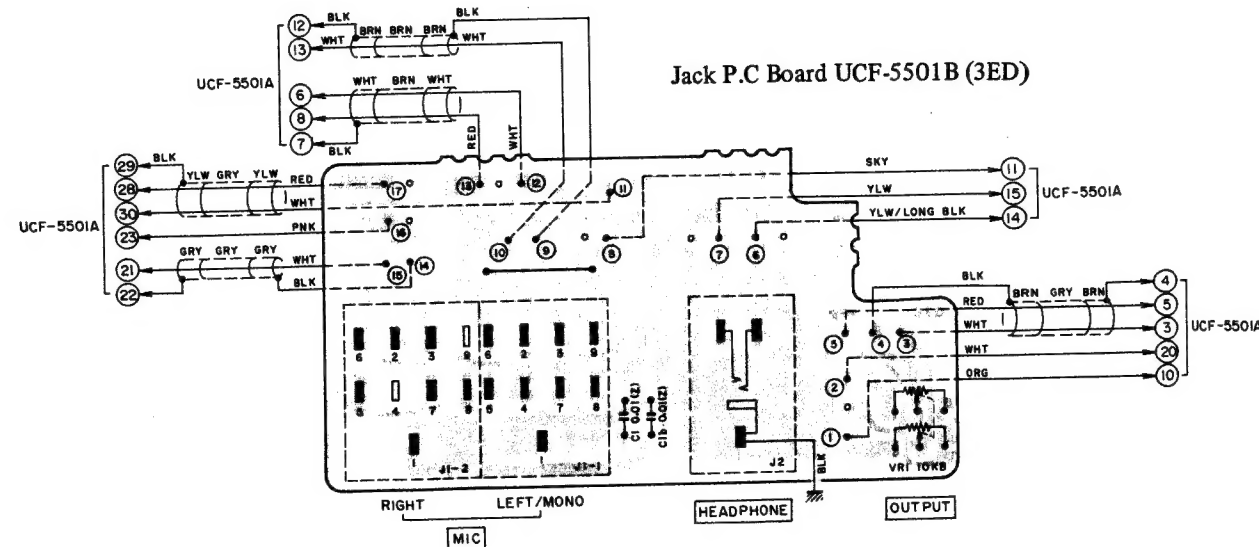
Counter P.C Board UCF-6501



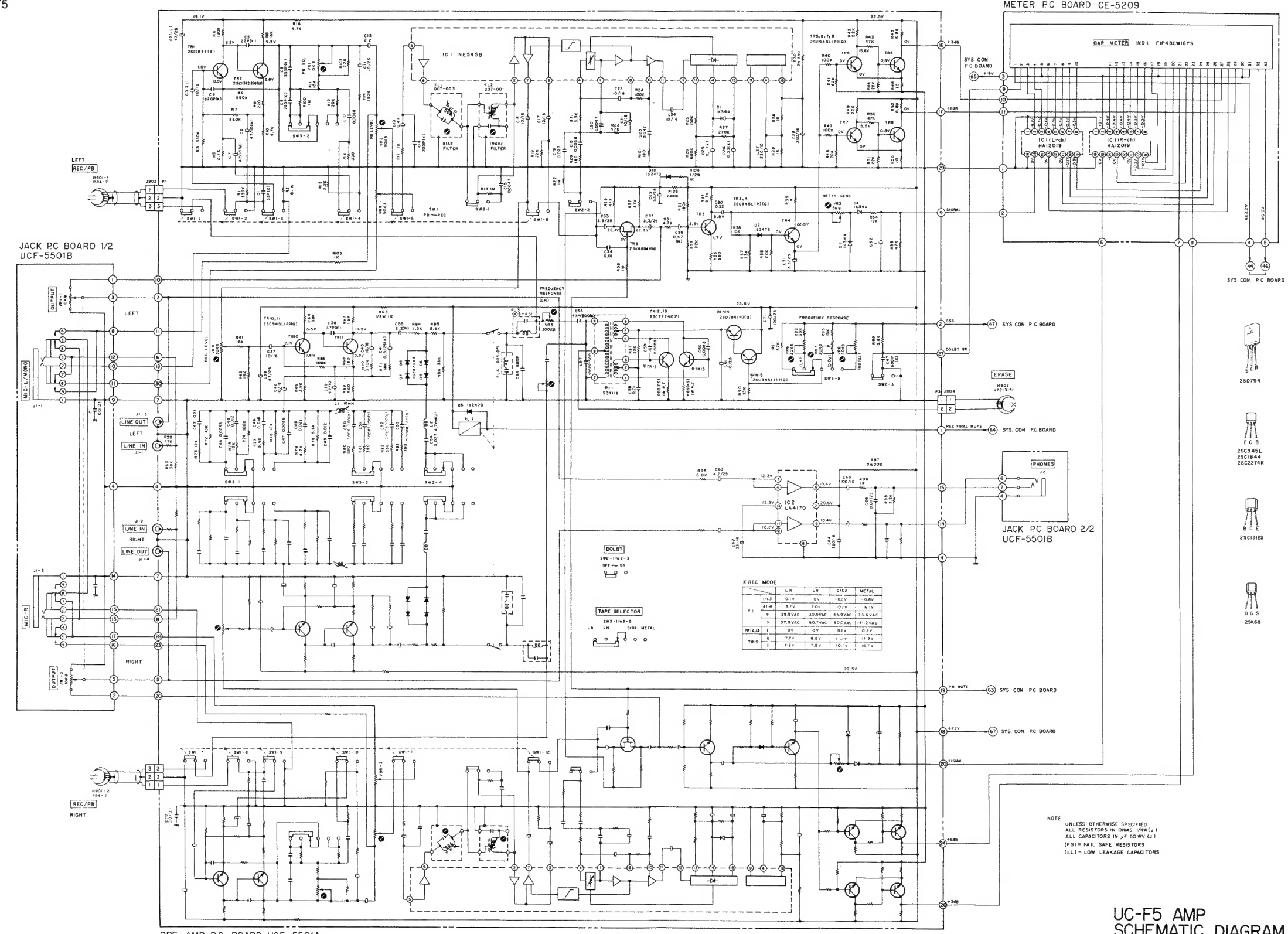
Mecha P.C Board UCF-1563 (3ED), Reflector P.C Board UCF-1550 and Detector P.C Board UCF-1520



Jack P.C Board UCF-5501B (3ED)



UC-F5



REC MODE

| | LN | LN | CTSP | METAL |
|-----|------|------|------|-------|
| 1 | 10.0 | 0.1V | 0V | -0.1V |
| 2 | 10.0 | 0.1V | 0V | -0.1V |
| 3 | 10.0 | 0.1V | 0V | -0.1V |
| 4 | 10.0 | 0.1V | 0V | -0.1V |
| 5 | 10.0 | 0.1V | 0V | -0.1V |
| 6 | 10.0 | 0.1V | 0V | -0.1V |
| 7 | 10.0 | 0.1V | 0V | -0.1V |
| 8 | 10.0 | 0.1V | 0V | -0.1V |
| 9 | 10.0 | 0.1V | 0V | -0.1V |
| 10 | 10.0 | 0.1V | 0V | -0.1V |
| 11 | 10.0 | 0.1V | 0V | -0.1V |
| 12 | 10.0 | 0.1V | 0V | -0.1V |
| 13 | 10.0 | 0.1V | 0V | -0.1V |
| 14 | 10.0 | 0.1V | 0V | -0.1V |
| 15 | 10.0 | 0.1V | 0V | -0.1V |
| 16 | 10.0 | 0.1V | 0V | -0.1V |
| 17 | 10.0 | 0.1V | 0V | -0.1V |
| 18 | 10.0 | 0.1V | 0V | -0.1V |
| 19 | 10.0 | 0.1V | 0V | -0.1V |
| 20 | 10.0 | 0.1V | 0V | -0.1V |
| 21 | 10.0 | 0.1V | 0V | -0.1V |
| 22 | 10.0 | 0.1V | 0V | -0.1V |
| 23 | 10.0 | 0.1V | 0V | -0.1V |
| 24 | 10.0 | 0.1V | 0V | -0.1V |
| 25 | 10.0 | 0.1V | 0V | -0.1V |
| 26 | 10.0 | 0.1V | 0V | -0.1V |
| 27 | 10.0 | 0.1V | 0V | -0.1V |
| 28 | 10.0 | 0.1V | 0V | -0.1V |
| 29 | 10.0 | 0.1V | 0V | -0.1V |
| 30 | 10.0 | 0.1V | 0V | -0.1V |
| 31 | 10.0 | 0.1V | 0V | -0.1V |
| 32 | 10.0 | 0.1V | 0V | -0.1V |
| 33 | 10.0 | 0.1V | 0V | -0.1V |
| 34 | 10.0 | 0.1V | 0V | -0.1V |
| 35 | 10.0 | 0.1V | 0V | -0.1V |
| 36 | 10.0 | 0.1V | 0V | -0.1V |
| 37 | 10.0 | 0.1V | 0V | -0.1V |
| 38 | 10.0 | 0.1V | 0V | -0.1V |
| 39 | 10.0 | 0.1V | 0V | -0.1V |
| 40 | 10.0 | 0.1V | 0V | -0.1V |
| 41 | 10.0 | 0.1V | 0V | -0.1V |
| 42 | 10.0 | 0.1V | 0V | -0.1V |
| 43 | 10.0 | 0.1V | 0V | -0.1V |
| 44 | 10.0 | 0.1V | 0V | -0.1V |
| 45 | 10.0 | 0.1V | 0V | -0.1V |
| 46 | 10.0 | 0.1V | 0V | -0.1V |
| 47 | 10.0 | 0.1V | 0V | -0.1V |
| 48 | 10.0 | 0.1V | 0V | -0.1V |
| 49 | 10.0 | 0.1V | 0V | -0.1V |
| 50 | 10.0 | 0.1V | 0V | -0.1V |
| 51 | 10.0 | 0.1V | 0V | -0.1V |
| 52 | 10.0 | 0.1V | 0V | -0.1V |
| 53 | 10.0 | 0.1V | 0V | -0.1V |
| 54 | 10.0 | 0.1V | 0V | -0.1V |
| 55 | 10.0 | 0.1V | 0V | -0.1V |
| 56 | 10.0 | 0.1V | 0V | -0.1V |
| 57 | 10.0 | 0.1V | 0V | -0.1V |
| 58 | 10.0 | 0.1V | 0V | -0.1V |
| 59 | 10.0 | 0.1V | 0V | -0.1V |
| 60 | 10.0 | 0.1V | 0V | -0.1V |
| 61 | 10.0 | 0.1V | 0V | -0.1V |
| 62 | 10.0 | 0.1V | 0V | -0.1V |
| 63 | 10.0 | 0.1V | 0V | -0.1V |
| 64 | 10.0 | 0.1V | 0V | -0.1V |
| 65 | 10.0 | 0.1V | 0V | -0.1V |
| 66 | 10.0 | 0.1V | 0V | -0.1V |
| 67 | 10.0 | 0.1V | 0V | -0.1V |
| 68 | 10.0 | 0.1V | 0V | -0.1V |
| 69 | 10.0 | 0.1V | 0V | -0.1V |
| 70 | 10.0 | 0.1V | 0V | -0.1V |
| 71 | 10.0 | 0.1V | 0V | -0.1V |
| 72 | 10.0 | 0.1V | 0V | -0.1V |
| 73 | 10.0 | 0.1V | 0V | -0.1V |
| 74 | 10.0 | 0.1V | 0V | -0.1V |
| 75 | 10.0 | 0.1V | 0V | -0.1V |
| 76 | 10.0 | 0.1V | 0V | -0.1V |
| 77 | 10.0 | 0.1V | 0V | -0.1V |
| 78 | 10.0 | 0.1V | 0V | -0.1V |
| 79 | 10.0 | 0.1V | 0V | -0.1V |
| 80 | 10.0 | 0.1V | 0V | -0.1V |
| 81 | 10.0 | 0.1V | 0V | -0.1V |
| 82 | 10.0 | 0.1V | 0V | -0.1V |
| 83 | 10.0 | 0.1V | 0V | -0.1V |
| 84 | 10.0 | 0.1V | 0V | -0.1V |
| 85 | 10.0 | 0.1V | 0V | -0.1V |
| 86 | 10.0 | 0.1V | 0V | -0.1V |
| 87 | 10.0 | 0.1V | 0V | -0.1V |
| 88 | 10.0 | 0.1V | 0V | -0.1V |
| 89 | 10.0 | 0.1V | 0V | -0.1V |
| 90 | 10.0 | 0.1V | 0V | -0.1V |
| 91 | 10.0 | 0.1V | 0V | -0.1V |
| 92 | 10.0 | 0.1V | 0V | -0.1V |
| 93 | 10.0 | 0.1V | 0V | -0.1V |
| 94 | 10.0 | 0.1V | 0V | -0.1V |
| 95 | 10.0 | 0.1V | 0V | -0.1V |
| 96 | 10.0 | 0.1V | 0V | -0.1V |
| 97 | 10.0 | 0.1V | 0V | -0.1V |
| 98 | 10.0 | 0.1V | 0V | -0.1V |
| 99 | 10.0 | 0.1V | 0V | -0.1V |
| 100 | 10.0 | 0.1V | 0V | -0.1V |

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS UNLESS OTHERWISE SPECIFIED
ALL CAPACITORS IN μF UNLESS OTHERWISE SPECIFIED
(FS) = FAIL SAFE RESISTORS
(LL) = LOW LEAKAGE CAPACITORS

UC-F5 AMP
SCHEMATIC DIAGRAM
NO.2-2 1600631A